

# South African Medical Journal Suid-Afrikaanse Tydskrif vir Geneeskunde

P.O. Box 643, Cape Town

Posbus 643, Kaapstad

Cape Town, 2 July 1955  
Weekly 2s. 6d.

Vol. 29 No. 27

Kaapstad, 2 Julie 1955  
Weekliks 2s. 6d.

## A SURVEY OF ACRYLIC ARTHROPLASTY FOR ARTHRITIS OF THE HIP JOINT

S. SCHWARTZ, M.B., CH.B. (CAPE TOWN), F.R.C.S., K. H. PRIDIE, M.B., B.S. (LOND.), F.R.C.S.

and

A. L. EYRE-BROOK, M.S. (LOND.), F.R.C.S.

*From the Royal Infirmary and the Winford Orthopaedic Hospitals, Bristol, England*

This report concerns the results obtained in 50 arthroplasties of the hip joint (in 42 patients) performed by K.H.P. and A.L.E.B. at the Winford Orthopaedic Hospital on 42 consecutive and unselected patients and reviewed independently by S.S. It is an endeavour to establish the status of plastic head replacement for arthritic disease of the hip joint.

The age incidence varied between 28 and 75, and over 80% of patients were in the 6th, 7th and 8th decades (Table I). The youngest patient was a severe rheumatoid.

TABLE I

Age	No. of cases			
Under 20	..	..	..	Nil
21-30	..	..	..	1
31-40	..	..	..	1
41-50	..	..	..	5
51-60	..	..	..	12
61-70	..	..	..	16
71-80	..	..	..	7

Of the patients in this series 17 were obese and this condition did not compromise the result of the operation.

In 39 cases the *basic pathology* was that of osteoarthritis, and in 3 cases rheumatoid arthritis. Cases of aseptic necrosis of the head of femur following Smith-Petersen nailing treated by plastic replacement were not included in this series.

In 14 cases *other joints* were involved such as hands, knee and spine.

The *period of follow-up* ranged from 12 months to 45 months.

Five cases were complicated by *previous surgery on the same hip*, for example, osteotomy in 2 cases, cup arthroplasty in 2 and failed fusion in one. Four cases had surgery on the other hip.

The anterolateral approach was employed in 44 hips and the posterolateral in 6.

The *acetabulum* was deepened with the Pridie acetabular cutter in 33 hips.

A *vitallium cup* was introduced over the acrylic head in 7 cases (see Fig. 1). The prosthesis was inserted at

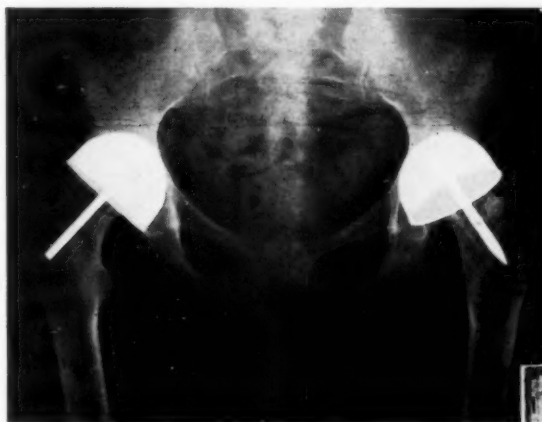


Fig. 1.

an average angle of 40° in 40 hips (i.e. the superior angle between the axis of the stem of the prosthesis and the axis of the femoral shaft).

### Pre-operative State

All the patients experienced pain and this was severe in 37, interfering with sleep.

Of the younger patients 10 were at work and found that the pain and disability interfered with their capacity

for work so that they felt that they would be unable to carry on.

Of the older patients 21 were unable to walk more than a few yards and were thus confined to their homes or rooms.

#### Post-operative State

As the result of the operation 20 patients were free from pain both at rest and after exertion. In 16 pain was experienced after exercise only. The 10 younger patients were able to return to their former occupations, viz. 4 as clerks and others as a factory inspector, a warehouse packer, a shop assistant, a woodwork instructor and 2 as night watchmen.

Of the housewives 21 were able to manage their own domestic work.

There were 26 patients who were able to walk a distance of 800 yards, and 16 of these could walk several miles. Only 6 patients were unable to venture out of the house.

There were 38 patients requiring a stick or sticks and 2 needed crutches; however, 17 of these were able to manage indoors without crutch or stick.

Movement was increased on an average by 10° (flexion).

#### Complications

*Subluxation* occurred in 2 cases.

*Dislocation* did not occur in this series. This complication occurred in 5% of cases in Buxton and Waugh's series<sup>1</sup> and in 11% in Mendelsohn and Alben's.<sup>2</sup> The following technical operative details may have helped to prevent this complication in our series:

(a) Deepening of the acetabulum where necessary.

(b) Restoration of the normal length of the femoral neck, where indicated, by the use of a prosthesis with an extended neck.

(c) By the insertion of the prosthesis into the neck at an average angle of 40° (i.e. not too valgus).

*Paracapsular ossification* occurred in 19 cases but was not associated with symptoms.

*Fracture of the prosthesis* occurred in 3 cases.

*Sepsis.* Superficial wound sepsis occurred in 5 cases. This responded well to treatment and did not compromise the end result.

*Haematoma* occurred in 1 case. This was evacuated and the wound healed satisfactorily.

#### Radiological Abnormalities

In 12 hips (24%) the insert was not concentric with the lines of bony condensation surrounding the stem of the prosthesis. Of these, 6 patients were free from complaints and one of these, operated on 33 months ago, is able to walk 6 miles without pain. Skiagrams in maximum abduction and adduction (Figs. 2 and 3) in these cases show that the stem does not alter in position in these views and is presumably well anchored.

#### Failures

Six cases (14%) were worse off after operation. In 2 there was poor condensation of bone around the stem of the prosthesis. In one the cause of the pain

was inexplicable, as both the clinical and radiological examinations of the hip were satisfactory.

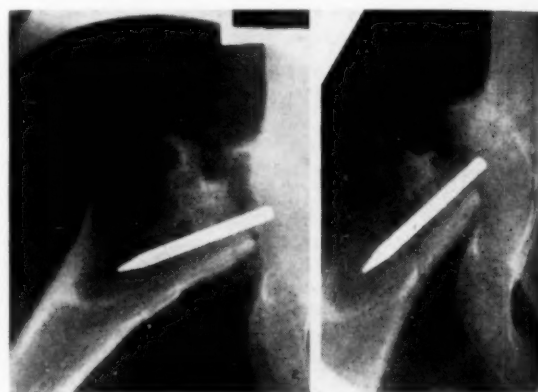
Fracture of the prosthesis accounted for the remainder of the failures (3 cases).

#### CONCLUSIONS

Thirty-four cases (80%) were pleased with the result of the operation. The main reason for the patients' satisfaction was the great relief from pain.

In those hips where the angle of insertion of the prosthesis exceeded 50°, the proportion in which the metallic insert was not concentric with the lines of bony condensation surrounding it was 50%.

When the skiagram shows the metal insert is not aligned with the lines of condensation in the femoral



Figs. 2 and 3.

neck, views in maximum abduction and adduction have not disclosed any alteration in these relationships (Figs. 2 and 3).

Cases in which no acetabular surgery was performed did as well as those in which the acetabulum was deepened with the acetabular cutter.

The relief of pain was the gratifying feature to all; no patient commented on the mobility or lack of mobility at the hip.

The series in which a vitallium cup is introduced over the acrylic head did universally well and there seems to be scope for this modification. The insertion of a smooth metallic lining might reduce wear on the surface of the acrylic head, which is one of the more serious findings in those acrylic heads removed at operation. Free motion between the acrylic and cup may prevent movement between the stem of the prosthesis and the neck of the femur, which occurs in a proportion of cases.

The replacement arthroplasty is one of the alternative procedures in severe bilateral osteo-arthritis of the hip joint where arthrodesis cannot be considered.

The introduction of the acrylic arthroplasty of the hip joint by the Judet Brothers in 1946 was most enthusiastically received and was regarded by many as a panacea for all hip-joint diseases at all ages. This

wave of  
pectedly  
a tempo  
arthropl  
with the

In sur  
be dema  
in the n  
patients

Most  
cases of  
severely  
tion for  
are usu  
rarely i  
relief of  
any pro  
for the  
acrylic-h  
in whom  
too grea

The Stee  
Group h  
able spe  
courses,  
The follo

Cape To

The U  
practition  
Groote S  
and was  
the accor  
was very  
be held i

The U  
arranges  
one wee  
should b

Week-

Pretoria

The U

1. Att  
postgrad  
not coun

2. A

of Cape

3. A

It has

this will

operation

course in

Johannes

Refres

tion by t

The R

graduate

wave of excessive optimism has, perhaps not unexpectedly, been followed by a wave of undue pessimism—a temporary reaction no doubt. We regard acrylic arthroplasty of the hip joint as one method of dealing with the problem of osteo-arthritis of that joint.

In suitably selected cases, where too much is not to be demanded from these prostheses, nor from the fixation in the neck of the femur, we may still hope for satisfied patients from this operation.

Most arthroplasties of the hip are suitable only for cases of gross osteo-arthritis where the patients are severely handicapped by pain. Pain is the main indication for arthroplasty. Deformity and loss of function are usually associated with the pain, but *per se* are rarely indications for this operation. Consequently relief of pain is the primary need of these patients and any procedures which succeeds in this respect will for the most part be satisfactory to the patient. The acrylic-head arthroplasty is suitable for older patients in whom mechanical demands on the prosthesis are not too great. Gibson<sup>3, 4</sup> emphasized that many of these

patients have not the mental nor physical capacity to undertake the prolonged post-operative physiotherapy necessary to give the best functional results. Furthermore, as pointed out by d'Aubigné and Postel<sup>5</sup> a persistence or recurrence of the degenerative process may account for some of the failures.

In the plastic replacement arthroplasty one obtains earlier ambulation and easier rehabilitation than with cup arthroplasties.

Careful selection of patients, we feel, will tend to lessen the number of complications and bad results.

More attention to such operative detail as good fixation and seating of the prosthesis in the neck of the femur will further tend to lessen the number of failures.

#### REFERENCES

1. Gibson, A. (1949): *J. Bone Jt. Surg.*, **31A**, 861.
2. Mendelsohn H. A. and Alban, S. L. (1954): *Ibid.* (American Vol.), **36A**, 30.
3. Buxton, St. J. D. and Waugh, W. (1953): *Ibid.*, **35B**, 57.
4. *Idem.* (1954): *Ibid.*, **36B**, 50.
5. D'Aubigné, R. M. and Postel, M. (1954): *Ibid.* (American Vol.), **36A**, 451.

### POSTGRADUATE FACILITIES FOR GENERAL PRACTITIONERS

The Steering Committee of the National General Practitioners' Group has attempted to survey the postgraduate facilities available specifically for general practitioners, either as refresher courses, clinical meetings or postgraduate lectures and courses. The following information has been obtained:

#### Cape Town

The University holds periodical refresher courses for general practitioners. A highly successful course was held in January at Groote Schuur Hospital. It lasted one week, was most intensive, and was very well attended. The number of applicants exceeded the accommodation and many had to be refused. The University was very pleased at the response. Another refresher course will be held in July 1955.

The University department of Obstetrics and Gynaecology arranges resident courses in obstetrics and gynaecology lasting one week or more for any practitioner on application, which should be made to the Dean of the Faculty of Medicine.

Week-end courses in special subjects are also arranged.

#### Pretoria

The University has the following schemes under consideration:

1. Attachment to a department of the Hospital as full-time postgraduate students for 1, 2 or 3 months or longer (this will not count for higher degrees).
2. A one-week's course twice a year, as held by the University of Cape Town.
3. A 3-4 days' course, as held by the Witwatersrand University. It has been decided to hold courses under scheme 2 or scheme 3; this will be advertised in the *Journal*. Scheme 1 is at present in operation, and some general practitioners have done a one-month's course in the Anaesthetics department.

#### Johannesburg

Refresher courses for general practitioners are under consideration by the Witwatersrand University.

The Rand Medical Discussion Club, which is open to medical graduates (not Witwatersrand graduates only) on payment of

one guinea per annum, holds clinical lectures on the last Thursday of every month. Guests of members are cordially invited. Members are notified of the following:

Medical and paediatric ward rounds, open to all medical practitioners, take place every Monday at 2 p.m. at Coronation Hospital. (Intending visitors are asked to telephone the hospital on the day of the round to confirm if it is taking place.)

Lectures are held on alternate Fridays at the South African Institute for Medical Research, also open to all medical practitioners. (Details of the subject can be obtained by telephoning the Secretary of the Medical Graduates' Association a few days before the lecture.)

The Witwatersrand Medical Graduates' Association also runs week-end postgraduate courses, which have been successful and popular. These are run in conjunction with the University, whose staff give clinical lectures and ward rounds. Although these week-end courses are meant primarily for Witwatersrand graduates, applications from graduates of other universities are accepted if possible.

The scientific journals of the Witwatersrand Medical Graduates' Association are the *South African Journal of Medical Sciences* and *Current Medicine*. These are sent to members free of charge.

#### Durban

The clinical meetings of the Natal Coastal Branch are open to all practitioners and are in the main what general practitioners require. They are held about once a month.

The new non-European Medical School is rapidly increasing its clinical demonstrations and lectures designed for the medical profession of the City. At these, general practitioners are being reasonably well catered for.

#### Port Elizabeth

A clinical meeting is organized by the Cape Midland Branch of the Association once a month and general practitioners are given every facility to show cases, etc. The General Practitioners' Group would like more lectures by visiting lecturers and has suggested that clinical ward rounds should be given by the honorary physicians and surgeons on the hospital staff.

#### East Rand

Clinical Meetings are held at the various hospital centres once a month. These are attended in the main by general practitioners. Lecturers from Johannesburg, Pretoria, and overseas when available, are invited to deliver lectures.

# South African Medical Journal

## Suid-Afrikaanse Tydskrif vir Geneeskunde

EDITORIAL

### ANTIBIOTIC TREATMENT OF TYPHOID FEVER

The initial observations on the successful use of chloramphenicol in the treatment of typhoid fever<sup>1</sup> have been followed by many confirmatory reports. However, certain disadvantages, mainly relating to toxicity, have led to the investigation of other 'broad spectrum' antibiotics in this disease. These have proved disappointing on the whole. Aureomycin has been given extensive trial by some workers and the poor results generally described, as compared with those obtained with chloramphenicol, have been attributed to differences in the host-drug relationships in the two cases<sup>2</sup>. One worker<sup>3</sup> has reported that there is a symbiotic action when aureomycin is given in conjunction with chloramphenicol. Analysis of the results in his paper, however, do not altogether support this view and the findings appear no better than those usually produced with chloramphenicol alone. Terramycin has also been found to have only a moderate effect in the treatment of typhoid fever.<sup>4</sup>

Tetracycline, the newest of the 'broad spectrum' antibiotics, has been investigated and, from preliminary communications, results with this antibiotic also appear relatively unsatisfactory. In a series of 25 cases a poor response was obtained in 40%, a fair or incomplete response in 28%, and a good response in 32%.<sup>5</sup> These results are by no means impressive and are indeed little better than those obtained in the pre-antibiotic era when good nursing was the mainstay of treatment. In another series of patients treated with tetracycline, it was found that the average duration of pyrexia after commencement of therapy was almost twice as long as with chloramphenicol.<sup>6</sup> The comparative failure of the 'broad spectrum' antibiotics, other than chloramphenicol, in typhoid fever is not due to any difference in the susceptibility of the causative organism as measured by *in vitro* testing. Practically identical minimal inhibitory concentrations are found with all, including chloramphenicol.

Chloramphenicol remains the drug of choice in typhoid fever, and in doses of 500 mg. or 250 mg. every 6 hours, depending on the severity of infection, will produce defervescence in 3-4 days in the average patient.

Toxic effects of chloramphenicol appear to be largely related to the use of heavy loading doses. In a series

VAN DIE REDAKSIE

### DIE ANTIBIOTIESE BEHANDELING VAN MAAGKOORS

Die eerste waarnemings van die suksesvolle behandeling van maagkoors met chloramphenicol<sup>1</sup> is later deur 'n aantal verslae bevestig. Sekere nadele, hoofsaaklik in verband met toksisiteit, het egter as aansporing gedien om ander 'wye-spektrum'-antibiotika vir maagkoors te ondersoek maar die resultate was oor die algemeen teleurstellend. Sommige werkers het aureomycin baie deeglik uitgetoets en die resultate wat hul beskryf vergelyk swak met dié vir chloramphenicol; dit word aan die verskil in die 'gasheer-geneesmiddel'-verhouding van die twee gevalle toegeskryf.<sup>2</sup> Een navorsers<sup>3</sup> het rapporteer dat 'n simbiotiese werking intree as aureomycin saam met chloramphenicol gegee word. Ontleding van die resultate wat hy aangee steun egter nie hierdie standpunt geheel en al nie en die resultate is oënskynlik nie beter as dié wat verkry word as chloramphenicol alleen gebruik word nie. Ook as terramycin gebruik word is gevind dat dit slegs 'n matige uitwerking op maagkoors het.<sup>4</sup>

Tetracycline, die jongste 'wye-spektrum'-antibiotiese middel, is ook ondersoek en gegrond op voorlopige gegewens blyk die resultate onbevredigend. In 'n reeks van 25 gevalle was die reaksie in 40% swak, in 28% was dit middelmatig of nie volledig nie, en in 32% was dit goed.<sup>5</sup> Hierdie resultate is geensins indrukwekkend nie—intendeel hul is maar weinig beter as wat behaal is in die tydperk vóór die antibiotika, toe goeie verpleging die hoeksteen van behandeling was. In 'n ander reeks pasiënte wat met tetracycline behandel is, is gevind dat nadat die behandeling begin is die koorsigheid gemiddeld ongeveer twee keer so lank<sup>6</sup> duur as wanneer chloramphenicol gebruik word. Hierdie betreklike mislukking van die 'wye spektrum'-antibiotika—met uitsondering van chloramphenicol—is nie aan enige verskil in die gevoeligheid van die veroorsakende organisme te wyte nie volgens *in vitro* toetse wat uitgevoer is. Feitlik identiese minimale stuitende konsentrasies word by almal, ook by chloramphenicol, gevind.

Chloramphenicol bly by voorkeur dié middel vir maagkoors. Dosisse van 500 mg. of 250 mg. elke 6 uur, na gelang die hewigheid van die aanval, sal gemiddeld binne 3-4 dae 'n afname in die siekte besorg.

Die vergiftigingsuitwerking van chloramphenicol staan oënskynlik grotendeels in verband met die toediening van swaar verhoogde dosisse. In 'n reeks van 330 gevalle waar in die begin 'n dosis van 3.5 g. gegee is, is vergiftigingsuitwerking in soveel as 44%<sup>7</sup> van die gevalle bespeur. Dit sluit in mislikheid, vomeer, huiduitslae en sekere geestesveranderings asook 'n vorm van vertraagde koors wat aan die geneesmiddel toegeskryf word. Die afskaffing van verhoogde dosisse het geleidelik



of 330 cases where an initial dose of 3.5 g. was given the incidence of toxic effects was as high as 44%.<sup>7</sup> These included nausea, vomiting, skin rashes, certain mental changes, and a form of delayed drug-fever. The abolition of loading doses resulted in a decrease of toxic effects without in any way diminishing the effectiveness of treatment.<sup>8</sup> In a series of 110 cases where no loading dose was given the incidence of toxic reactions was only 5%.<sup>9</sup>

Two forms of combined therapy have been recommended in recent years. The first of these is the administration of chloramphenicol along with TAB. The latter is given on the assumption that it will stimulate antibody formation, which might tend to be depressed by the antibiotic. This may well be a rational procedure in the first few days of illness, when it is known that antibiotics may depress antibody formation. In cases seen after the first week, however, the administration of chloramphenicol seems to have little effect on antibody production.

The second form of combined therapy is that of chloramphenicol along with cortisone. There is no doubt that occasionally in certain seriously-ill patients dramatic response is observed, with defervescence in 24-36 hours and great improvement in the general state. This form of therapy is not without its dangers and, theoretically at least, there is a risk that perforation may occur more readily in patients so treated. It is a form of therapy which should be restricted to those seriously-ill patients where the response to chloramphenicol alone appears to be less than usual.

Effective though chloramphenicol is in the great majority of cases of typhoid fever, its failure to influence the relapse rate or the incidence of complications is disappointing and the last word has not yet been said on the antibiotic treatment of this still common disease.

1. Woodward, T. E. *et al.* (1948): *Ann. Intern. Med.*, **29**, 131.
2. Werner, C. A., MacDermott, W., Adams, C. and Du Bois, R. (1954): *J. Clin. Invest.*, **33**, 753.
3. Ray, B. B. (1954): *Indian Med. Gaz.*, **89**, 412.
4. Roy, H. K. and Das, A. (1952): *Calcutta Med. J.*, **49**, 389.
5. Ruiz Sanchez, F., Ruiz Sanchez, A. and Granda, Q. F. E. N. (1955): *Antib. and Med.*, **1**, 30.
6. Watson, K. C. (1955): *Lancet*, **1**, 646.
7. Marmion, D. E. (1952): *Trans. Roy. Soc. Trop. Med. Hyg.*, **46**, 619.
8. El Ramli, A. H. (1953): *Lancet*, **1**, 927.
9. Watson, K. C. (1954): *Trans. Roy. Soc. Trop. Med. Hyg.*, **48**, 526.

tot 'n afname in die vergiftigingsgevolge sonder om op enige manier inbreuk op die doeltreffendheid van die behandeling te maak nie.<sup>8</sup> In 'n reeks van 110 gevalle waar geen verhoogde dosis gegee is nie het slegs 5% van die gevalle tekens van vergiftiging getoon.<sup>9</sup>

In die laaste jare word twee vorms van gesamentlike behandeling aanbeveel. Die eerste is die toediening van chloramphenicol saam met TAB. Laasgenoemde word gegee omdat dit veronderstel word om die vorming van teenliggame aan te wakker, wat die antibiotiese middel geneig mag wees om te onderdruk. Dit mag wel in die eerste paar dae van die siekte 'n verstandige optrede wees gedurende welke tydperk dit bekend is dat die antibiotika die opbou van teenliggame mag onderdruk. In gevalle wat na die eerste week gesien is, blyk dit egter asof die toediening van chloramphenicol weinig uitwerking op die vervaardiging van teenliggame uit-oefen.

Die tweede vorm van gesamentlike terapie is om chloramphenicol saam met cortisone te gee. By sekere ernstig siek pasiënte tree daar ongetwyfeld af en toe dramatiese verbetering in, die koors neem binne 24-36 uur af en 'n groot verbetering in die algemene toestand word bespeur. Aan hierdie behandeling is risiko's verbonde en teoreties altans bestaan daar die gevaar dat perforasie meer gereedlik by pasiënte sal voorkom wat hierdie behandeling ondergaan. Hierdie vorm van terapie behoort tot die ernstig siek pasiënte beperk te word wie se reaksies tot chloramphenicol alleen swakker is as wat gewoonlik die geval is.

Hoe doeltreffend ook al chloramphenicol in die groot meerderheid van maagkoorsgevalle mag wees, is dit teleurstellend dat dit nie slaag om die heraanvalsyfer te keer nie of om komplikasies te verhoed nie. Die antibiotiese behandeling van hierdie siekte wat nog so algemeen voorkom verg verder studie.

1. Woodward, T. E. *et al.* (1948): *Ann. Intern. Med.*, **29**, 131.
2. Werner, C. A., MacDermott, W., Adams, C. en Du Bois, R. (1954): *J. Clin. Invest.*, **33**, 753.
3. Ray, B. B. (1954): *Indian Med. Gaz.*, **89**, 412.
4. Roy, H. K. en Das, A. (1952): *Calcutta Med. J.*, **49**, 389.
5. Ruiz Sanchez, F., Ruiz Sanchez, A. en Granda, Q. F. E. N. (1955): *Antib. en Med.*, **1**, 30.
6. Watson, K. C. (1955): *Lancet*, **1**, 646.
7. Marmion, D. E. (1952): *Trans. Roy. Soc. Trop. Med. Hyg.*, **46**, 619.
8. El Ramli, A. H. (1953): *Lancet*, **1**, 927.
9. Watson, K. C. (1954): *Trans. Roy. Soc. Trop. Med. Hyg.*, **48**, 526.

## PETHIDINE ADDICTION

Pethidine is a synthetic analgesic introduced in 1939 and now widely used in therapeutics. It shares pharmacological properties of morphine and atropine. A large number of related compounds have been prepared but they have not come into general use. The exact site of the analgesic action is not definitely known but it is believed to be on cortical or sub-cortical structures. As with other sedative-analgesic drugs, patients may become psychologically dependent on pethidine.

The fact that it is an addiction-producing drug would not appear to need emphasis. Yet there is an increasing tendency to pethidine addiction sufficiently great to

perturb the authorities.<sup>1</sup> Particular attention is drawn to the attitude of medical practitioners towards the drug, based on a widespread but mistaken belief that pethidine is less dangerous than morphine in producing addiction. Addiction is most likely to occur in psychopathic patients or in patients given large doses over a prolonged period, but there is a high incidence of primary pethidine addiction among doctors, nurses and members of associated professions.

Since pethidine was introduced a steadily increasing quantity of the drug has been consumed. In the United States 101,102 ounces were consumed in 1946, and

283,162 ounces in 1952. The number of pethidine addicts admitted to institutions in that country for treatment has correspondingly increased. Between 1 July 1950 and 30 September 1953 the addicts admitted to one large centre, the Public Health Service Hospital in Lexington, Kentucky, numbered 457, of whom 84% had sought treatment voluntarily. Of the 457 patients 76 were medical practitioners, 79 were nurses, 2 were dentists, and 29 were from ancillary professions. In 1953 three-quarters of the addicts admitted to the hospital were males and one-quarter females. The majority of patients indicated that they had first received the drug from doctors. Some maintained their supply by forging prescriptions or stealing from hospitals where they were employed; some resorted to other drugs when their pethidine supply was restricted. Among the reasons given for the original taking of the drug were, for example, depression, anxiety, menstrual disturbance, alcoholic 'hangover', and pain.

It would be interesting to have statistics of pethidine addiction for other countries, including South Africa;

probably the incidence here is higher than most doctors would expect. The drug is easily available and many are not fully aware of its dangerous character from the addiction point of view. The abstinence (withdrawal) symptoms are severe, but usually less so than with morphine. They develop within a few hours, with muscle twitchings and extreme restlessness as prominent signs. In South Africa the authorities are well aware of the dangers of pethidine; and the regulations under the Medical, Dental and Pharmacy Act require medical practitioners to take the same precautions in prescribing pethidine as the drugs whose habit-forming properties are better known in the profession.

The management of addiction is a specialized procedure. The combined medical, nursing and psychiatric treatment can best be carried out in special institutions, where a complete clinical and laboratory investigation is made before withdrawal therapy is undertaken. Rehabilitation measures will be necessary under the guidance of the psychiatrist.

1. Wld. Hlth. Org. Techn. Rep. Ser. 1955, No. 95.

## REVISION SERIES

# XII. THE PROBLEMS OF INGUINAL AND FEMORAL HERNIA IN PRACTICE

A. E. KARK, B.Sc., M.B., B.Ch. (RAND), F.R.C.S.

*Professor of Surgery, Durban Medical School, University of Natal, Durban*

The diagnosis of a lump in the groin is an unending source of pleasure to examiners, who expect students to combine the detailed knowledge of a Gray with the clinical acumen of an Osler. Furthermore, the subject is a blessing to literary and surgical aspirants; anatomical and technical details are continually described, and herniorrhaphies are the traditional training ground for surgical residents.

In practice, the diagnostic problems facing the doctor are usually straightforward. His main concern when dealing with worried mothers or old men with grubby trusses is advice and treatment.

An accurate knowledge of causation is necessary for satisfactory treatment, and herein lies a difficulty in discussing this subject. There are numerous theories and hypotheses, but with the exception of the true congenital hernia, where the projection of peritoneum is continuous with the testicle, no single cause is known. The generalization that jerks, strains and severe physical exertions are the causes of hernia may be upheld in a court of law, but these are probably only precipitating factors.

The types of operation that have been advised would fill a text-book and, historically, the treatment of hernia appears in the earliest papyrus. Ever since, each surgical generation has supplied its quota of eponyms to procedures ranging from excision of the sac, in the ancient world, to cure by sepsis and the injection of sclerosants. In the last 70 years the principles of treatment have been based on excision of the sac, combined, when necessary, with a repair of the weakened area.

The treatment of hernia is in fact one of the most satisfactory surgical procedures in any age-group.

There are 3 anatomical points to bear in mind (Fig. 1):

1. The pubic tubercle and the anterior superior spine, and slung between them the inguinal ligament.

2. The inguinal skin crease. This is always visible even in the obese, and is the most valuable landmark.

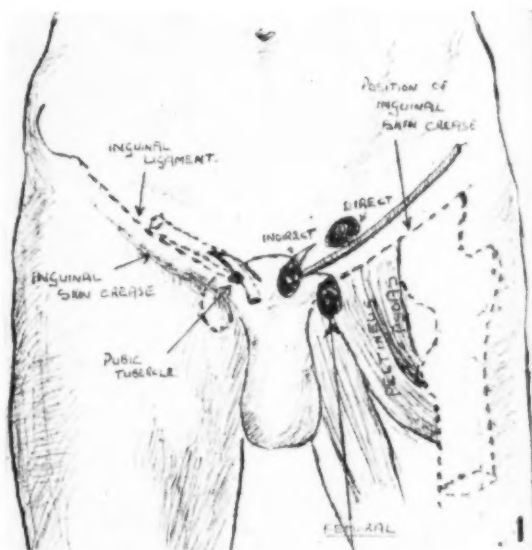


Fig. 1. On the left showing the relationship of the inguinal skin crease to the inguinal ligament. On the right showing the relationship of inguinal and femoral hernia to the inguinal skin crease.

Anatomically, it lies a little below Poupart's ligament, but in practice almost every hernia lying above this skin crease is inguinal, while any hernia below the line has come through the femoral canal.

3. There are 3 layers of abdominal muscle through which the cord must emerge. The fact that the track is oblique must not confuse the picture. The cord pierces the abdominal wall above the mid-point of the inguinal ligament and emerges just above the pubic tubercle. Each of these muscles thus gives a covering to the cord and, therefore, to an emerging hernial sac.

#### *Differential Diagnosis of Groin Hernia*

1. Watch from a few feet away, with the patient standing in a good light, and see the relationship of the lump to the inguinal skin crease. This will settle the issue in the great majority of cases. Where there is still doubt, palpation will confirm the diagnosis.

2. Feel the pubic tubercle, remembering that this point is an inch lateral to the mid-line of the pubis. If the neck of the hernial sac is above this point it is an inguinal hernia, and if below, it is femoral. Sometimes it is easier to relate the tubercle to the outside of the lump. If, on approaching the lump from the outer side, the tubercle can be felt, then it is an inguinal hernia; the tubercle cannot be felt from the outside of a femoral hernia.

3. A hernia in the scrotum must have come along the inguinal canal, as this is the only entrance to the scrotum. It is therefore indirect.

4. A direct hernia goes straight backwards when reduced, while an indirect hernia reduces in an oblique direction up and outwards.

5. Other lumps in the groin to be borne in mind are inguinal and femoral glands, a saphenous varicosity, an undescended testis in a young man and, more rarely, a lipoma or a cold abscess. A scrotal hernia must not be confused with a hydrocele; the latter transilluminates and the examining fingers can get above it at the top of the scrotum.

#### HERNIA IN CHILDREN

Inguinal hernia is common in babies, usually boys, and occurs most often on the right side. There are 2 distinct types:

(a) *With a normally descended testicle.* This is the true congenital type and presents either as a small swelling, or as a large one coming down into the scrotum, with the testis normally placed at the base of the scrotum. Surgery is the only effective cure, but it is not an easy procedure in the very young, and for this reason a soft truss should be prescribed until the child reaches the age of 9 months to a year. By this time, the tissues are less delicate and the layers are better developed. A spring or rubber truss is often harmful to the testis; so the mother must be shown how to use a soft knitting-wool or linen bandage. With her finger holding a small pad to keep the hernia back, a doubled length of wool is wound round the child's body, brought back and passed through the loop so formed, then taken down around the groin to be hitched up at the back. This is a clean and harmless method, and the need for constant care of the skin

through cleanliness and powdering must be impressed on the mother. Unless the mother is careless or unintelligent, it is unwise to advise surgery at an earlier age. Contrary to what is usually thought, these herniae often become irreducible, but with adequate treatment, they rarely become strangulated. The method of treatment is simply to sedate the child heavily so as to relieve the pain and spasm, and to suspend the legs in the air from a cross-bar. After 1-2 hours the hernia slips back by itself or very gentle pressure with one finger will cause it to do so. If this procedure fails a general anaesthetic should be used, when it will slip back and nothing further need be done. Emergency surgery is seldom necessary.

(b) *With mal-descent of the testis.* Practically every undescended testis, whether intra-abdominal or in the inguinal canal, is accompanied by an inguinal hernia. The problem in this case is that of the undescended testis, and this should be left until the age of 10-12 years before any surgical interference is undertaken. Every effort should be made by both the mother and the surgeon to delay treatment until then. However, if the child is constantly in pain, or if the hernia is large, it should be repaired earlier and the testis brought down at the same time. A schoolboy has difficulty in managing a truss and is often unhappy about being different from his friends, so where the hernia is the main cause of trouble it should be dealt with as soon as necessary.

The routine operation in young children is done under a general anaesthetic, with the child's buttocks over a sandbag. The external ring is exposed by a short incision in the skin crease over the medial end of the inguinal ligament, and with gentle traction the hernial sac is carefully dissected from the cord without opening the canal. The sac is ligated as high as possible, and no repair is necessary. The recurrence rate is almost *nil*, and the only (and rare) complication of the operation is damage to the testicle, either by cutting the blood supply or injuring the cord.

A most important feature of the post-operative nursing is to provide a Stiles dressing, whereby a napkin is suspended from a cradle so as to hang between the legs. Urine soaks into this and the wound is kept clean and dry.

#### INGUINAL HERNIA IN YOUNG ADULTS

Most young men who present themselves with a lump in the groin are about to enter the public service or have recently started manual labour. This lump, the size of a marble on coughing, is called a bubonocoele. The hernia may enter the scrotum, with a history of a lump on coughing for some years. The classic method of examining a hernia by invaginating the scrotum is painful, and the same information can usually be gained by laying two fingers over the external ring and feeling for a cough impulse.

Operation is the correct treatment and 95% of patients in good general health will be permanently cured. The only contra-indications are debilitating disease and poor muscle-tone. Tuberculosis is not a contra-indication with modern anaesthesia, but a chronic cough is a



definite indication for postponing treatment until it has been improved.

It is generally agreed that the inguinal muscles have a shutter-like action, which normally prevents any abdominal contents from leaving when the oblique muscles and the conjoint tendon come into play. Whatever the cause of an indirect hernia, the first step in allowing abdominal contents through is the passage of a sac of peritoneum. The next step is a progressive widening of the internal ring in a medial direction by the piece of gut constantly pushing through. This is the stage at which the young adult presents himself and the treatment is removal of the sac as high as possible, i.e. a simple herniotomy.

It must be stressed that it is unnecessary and harmful to do a Bassini-type repair in a young man with sound abdominal muscles. It interferes with the delicate mechanism of the inguinal muscles, which can be returned to full function by excision of the sac and abdominal exercises. All that a repair of the canal can achieve is the addition of a dense layer of fibrous tissue which bolsters up the posterior wall of the inguinal canal. What success a radical repair has in young men is due to the high excision of the sac and strong healthy muscle which reinforces the fibrous barrier that has been built.

Pre-operatively the patient must be told to start abdominal exercises, which include leg-raising, trunk-raising and rotatory exercises that bring the oblique muscles into play. These must be practised for some weeks so that post-operatively they can be continued without any initial stiffness.

The standard operation is performed through a skin crease across the inguinal ligament to avoid the fat and sebaceous glands of the pudendal region. The sac is dissected off without disturbing the cord structures, and cleaned right up to the internal ring until the extra-peritoneal fat becomes visible, and then transfixed and excised. If the internal ring is dilated more than the diameter of the little finger, a stitch should be taken from the top of the medial side of the ring through the inferior border of the ring, taking a bite of Poupart's ligament, and then back to the ring. This darn is repeated once or twice until the ring is as small as the tip of the little finger. That is all that is done, and the incision is closed.

The patient should get up the next day and continue with abdominal exercises. He should be home within a week, but he must take care to avoid heavy work for 2 months.

Recurrence is the reason for the doubts often expressed about hernia operations by the layman. The majority of recurrences start soon after the operation, within 6 months to a year, and failures are due to inadequate excision of the sac or excess repair of strong muscles, causing fibrosis and subsequent weakness.

#### HERNIA IN MIDDLE-AGE

In this age-group femoral, indirect and direct herniae are all common. The patients are usually fat, with slack abdominal muscles, while the flat muscles of the thin patient are in reality thinned out and atrophied. The shutter mechanism of the inguinal canal has become quite incompetent, and even extensive muscle re-

education would be insufficient. Therefore a radical repair of the weakened posterior wall is essential. This applies as well to the direct hernia which is usually the result of muscle weakness.

Whatever the occupation, surgery is advised for all indirect herniae. The muscle weakness makes the chance of cure less but, even then, a recurrence rate of more than 10% is unusual. It is uncommon for a direct hernia to obstruct, and so the use of a truss is relatively safe. But the difficulties and inconveniences, and also the fact that it must be worn permanently, must be made clear, and any reasonably fit and active man should be operated on regardless of age. It is particularly important to deal with a chronic smoker's cough. Most people smoke, and it is of little use repairing a hernia only to hear the patient walk into the room 3 months later with the same hacking cough. Pre-operatively, the patient should reduce his smoking and improve his chronic bronchitis so that his coughing is at a minimum, and marked overweight must come under the dietary care of a physician. It is only if these precautions are taken that 90% of patients will be cured; otherwise it is a chancy undertaking for the patient and an unsatisfactory one for the surgeon.

The operative treatment is fundamentally the same for long-standing indirect hernia and for direct hernia. The posterior wall has to be reinforced after removal of the sac. In the indirect type the sac is transfixed and removed at the internal ring. The direct sac can be dealt with in the same way or, where there is a generalized bulge, the edges, after opening the sac, are simply oversewn to reduce its size. The material used to bridge the gap in the posterior wall depends on the size of the deficiency. In most indirect herniae a good fibrous barrier will be made with No. 4 silk or nylon. In direct hernia and in those indirect herniae where the posterior wall is practically absent, a lattice-work of fascia is used to form a broad strong defence. Using the material selected, a stitch is taken through the lower rectus sheath and the peritoneum of the pubis and continued as a close continuous darn through the conjoint tendon and the fascia transversalis, picking up Poupart's ligament and then back to the conjoint tendon. This is continued until the whole posterior wall has been reinforced, and, in doing so, the internal ring has been pushed outwards and upwards. The cord is then replaced and the external oblique closed. There are many variants of this technique—all excellent—and they should not have a recurrence rate higher than 10%.

Post-operatively, a safe policy is to have bed-rest for one week, and beyond that, to avoid undue strain and lifting for the next 4 months.

**Femoral Herniae.** These are commoner in women, and must always be repaired surgically; a truss is quite useless because it cannot push a hernia back around corners, and it is a dangerous placebo because it delays treatment.

Lotheisen's approach is usually advised, but it is more difficult than the extra-peritoneal approach of Henry. As emergency operations practice frequently have to be done under trying circumstances, with poor anaesthesia or inexperienced assistance, this latter approach is an

advanta  
to the f  
almost i

Fig. 2  
ligame  
extra-

the adv  
lem of  
one's g  
Thro  
muscle  
and th  
the pu  
will im  
vein, a  
quite e  
the sh  
cut wi  
can be  
and th  
the inf  
is the  
a not

Age  
are m  
years  
tion w  
surge  
of age  
stand  
whole  
100%  
matt  
whole  
ligame

Indica  
Alt



advantage. Exposure is well-nigh perfect, and damage to the femoral vein or abnormal obturator artery is almost impossible (Fig. 2). Where resection is necessary,

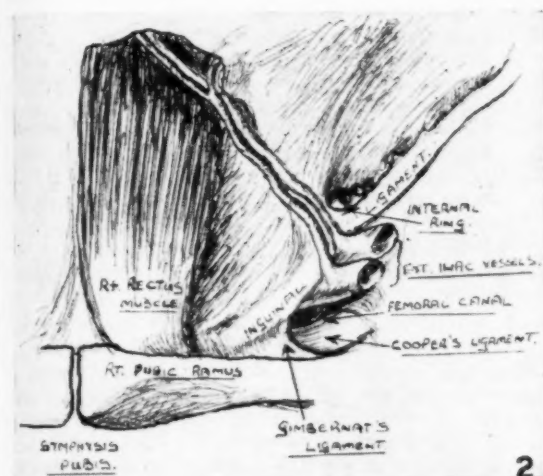


Fig. 2. The view obtained of the femoral canal, Gimbernat's ligament and the femoral vessels by means of the suprapubic extra-peritoneal approach of Henry.

the advantages of this are most apparent, and the problem of a small piece of questionable bowel slipping from one's grasp does not arise.

Through a transverse suprapubic incision the rectus muscles are separated, the peritoneum pushed back, and the extra-peritoneal tissues dissected down along the pubic ramus. The femoral canal, with its contents, will immediately be seen lying next to the external iliac vein, and the hernia can be reduced from this position quite easily by gentle traction. If there is any difficulty, the sharp edge of Gimbernat's ligament can be safely cut with the good exposure that is obtained. The sac can be opened with all structures under direct vision, and the classical repair—suturing Cooper's ligament to the inguinal ligament—is carried out. A big advantage is the ease with which a bilateral repair can be done—a not infrequent finding in femoral herniae.

Age in itself is no barrier to a hernia operation. There are many remarkably fit men and women well over 70 years old, and often over 80, who will tolerate an operation without any trouble and, barring obvious infirmity, surgery should be advised. Any man over 65 years of age with an indirect hernia should be given to understand that removal of the testis on that side makes the whole procedure much simpler and will give him a near 100% cure. Then, after removing the cord it is simply a matter of closing the inguinal canal by sewing the whole length of the conjoint tendon firmly to the inguinal ligament, as is done for inguinal herniae in women.

#### THE TRUSS

##### Indications for a Truss

Although the truss-makers might disagree, this instru-

ment is frequently ineffective, often irksome, dirty and irritating to the skin, and sometimes dangerous. However, a truss may be ordered in:

(a) Indirect herniae that are reducible, and the patient—for social or medical reasons—wants to postpone the operation.

(b) Direct hernia: A truss controls this well and, as surgery has its highest incidence of failure here, it must be left to the wishes of the patient and the discretion of the doctor to decide on operative treatment. Any sedentary occupation justifies the trial of a truss.

Under no circumstances should a truss be ordered for:

(i) Any femoral hernia. A truss cannot keep the hernia back.

(ii) Any hernia which is irreducible. The elderly patient with an irreducible hernia who is doubtful about operation must not be pacified with the hope that a truss might help, because it will not do so.

##### Measuring and Fitting a Truss

The spring truss is the only really suitable type, and must be of the best steel, to retain the required rigidity and ensure that increased stress on the spring will not cause bending of the band.

The size is measured by lying the patient down, placing a tape on one pubic tubercle, and taking it around midway between the anterior superior spine and the greater trochanter across the middle piece of the sacrum, and back via the opposite mid-point of the iliac spine and trochanter to the same pubic tubercle. A rat-tail truss must be ordered for a big hernia that comes down into the scrotum.

The patient puts the truss on before getting up in the morning and takes it off in bed at night. If he is a chronic cough, he should wear a support at night, and the elastic belt support is the most comfortable.

The skin must be cared for meticulously, using a good dusting powder regularly, and can be hardened by using surgical spirits.

#### COMPLICATIONS OF HERNIA

1. *Irreducibility.* This renders a truss useless and merely means that an operation should be done as soon as possible.

2. *Strangulation.* This is common, and is a serious complication. First the gut becomes obstructed and colicky pains begin; then the blood supply is cut off and the lump becomes tense and tender and finally, when the gut wall has become devitalized, peritonitis starts. It is interesting to bear a few figures in mind:

Strangulated hernia is the commonest cause of intestinal obstruction, causing nearly 50% of cases.

Inguinal herniae account for 80% of all herniae, but only 4% strangulate; of femoral herniae, which account for only about 5% of all herniae, over 25% strangulate. Thus, despite the overwhelming majority of the inguinal variety, out of every 100 cases of strangulated herniae seen, 50 will be inguinal and over 40 femoral, while the remainder are umbilical and ventral.

The mortality is increased 5-fold where treatment is delayed for longer than 24 hours, or if resection becomes necessary, and early diagnosis is the only means of

avoiding this. The over-all mortality for strangulated hernia is still about 10%—a slightly lower figure than in other obstructive lesions.

Any hernia that becomes irreducible, tender and tense is strangulated. There are no exceptions to this statement, and every strangulated hernia must be operated upon promptly.

To attempt reduction by taxis is a dangerous procedure, and should not be done. If a patient with an irreducible hernia is not vomiting, by all means let him lie with his feet up, give an injection of morphia and after an hour exert gentle pressure. But with signs of obstruction immediate operation must be undertaken. The dangers of taxis, including rupture of the bowel and reduction en masse, far outweigh its limited usefulness; moreover, the use of pressure is against all sound surgical principles.

It is worth emphasizing that, in every acute abdominal emergency, the groin must be carefully examined. Errors in diagnosis still occur, and are often simply due to the fact that bedclothes or trousers have not been pulled down low enough. Remember that the lump may be quite tiny, especially in a femoral hernia or where only a part of the circumference of the bowel is involved.

The treatment of a strangulated hernia is really the treatment of intestinal obstruction, and the repair of the hernia is essentially a secondary matter. In adults who are reasonably fit and healthy, general anaesthesia is far preferable from the point of view of both patient and surgeon. But elderly patients with acute obstruction frequently suffer from marked chronic bronchitis, and the only safe method of anaesthesia is a local infiltration with 1% novocain. This is one of the few remaining techniques in regional anaesthesia which must remain in the repertoire of the general surgeon.

The operative approach to both inguinal and femoral strangulated hernia is the same as that described for the set operation. The constricting ring must be divided under vision and the imprisoned bowel freed. In inguinal hernia it is the neck of the sac at the internal or external ring that must be cut, while in the femoral hernia it is the sharp edge of Gimbernat's ligament that is the obstacle; it is here that the advantages of Henry's suprapubic extra-peritoneal exposure are best appreciated. The danger of abnormal vessels in the region of this ligament is exaggerated, and the ease with which the structures are handled and the obstruction cut considerably lessens anxiety.

The vital problem that faces the operator is the viability of the bowel and the need for resection. Although the mortality following bowel resection is nearly 5 times as great as in the simple relief of the constricting ring, there must be no hesitation about removing doubtful

bowel. A blue-black appearance of the bowel with no peristaltic response to squeezing is a definite indication of non-viable bowel. In the last analysis the state of the vessels in the mesentery is the determining factor. With thrombosed vessels in a haemorrhagic mesentery, the bowel will certainly not recover.

A large proportion of post-operative fatalities is due to peritonitis caused by leakage at the suture line. It is far safer to resect too much than too little, and more lives are lost by insufficient removal of non-viable bowel than by too radical removal; at least 2 feet proximal and 1 foot distal to the area of discoloured bowel must be removed, making sure that the vessels in the mesentery at these two levels are pulsating strongly.

By far the best and safest way of reducing the mortality from strangulated hernia is early diagnosis and early operation.

#### CONCLUSIONS

These brief descriptions are of the common forms of hernia seen in practice. The problems are rather ones of advice and treatment than of diagnosis. The type of hernia is in most cases apparent on seeing its relation to the inguinal skin crease. Where there is difficulty, careful palpation of the pubic tubercle will decide its relationship to the hernial sac, and therefore the diagnosis.

In children the delicate tissues and the vulnerable testis require a cautious approach and operation should be postponed if possible until the age of 12-18 months.

In young, strong adults there should be as little interference as possible with a physiological barrier made up of carefully integrated muscle components. Excision of the hernial sac as high as possible, up to the level of the internal ring, with intensive pre- and post-operative muscular exercise, is the best guarantee for preventing a recurrence.

Where there has already been some degree of stretching of the internal ring by an indirect hernia of some years standing, the medial side of the internal ring must be narrowed by a stitch after removal of the sac.

In middle age, where the posterior wall of the canal has been considerably weakened by muscle atrophy, or a direct hernia has breached a fair gap, a radical repair is usually advisable and the unsatisfactory alternative of a truss avoided where possible.

Femoral hernia is a separate problem and a plea is made for the Henry suprapubic approach, which considerably simplifies a procedure that is often carried out under difficult circumstances.

A strangulated hernia is the commonest form of intestinal obstruction, and a tense, tender and irreducible lump in the groin, with vomiting, calls for immediate operation. The mortality following operation for strangulated hernia is still high, and the need for bowel resection—the main cause of fatalities—can be reduced to a minimum by early diagnosis and prompt surgery. It should be made an absolute rule to examine the groins first in every case of abdominal pain and vomiting.

Finally, regional analgesia is at times essential in those elderly patients with acute obstruction who have marked chronic bronchitis.

For this Bilroth always said to 1517 A.I. his father 2nd cen the first course said to H a prolaps imperati conform In 1560 During with hav uteri, an berg rep tomy.<sup>2</sup>

Conra first we purpose Apparen ments. in 1822, (1828) a the vag stance, both in

When became operati also be vaginal years, a found i

2 (a) Fun

Under rhagica endome at varie In a la ing, no histolo may b dilati as they vaginal an arti of rad as foll (i) It

## VAGINAL HYSTERECTOMY

H. M. PRETORIUS, M.R.C.O.G.

Durban

## 1. HISTORY

For this operation we are indebted to Czerny, Schröder, Bilioth and Mikulicz.<sup>1</sup> A pioneer of whom Italy can always be proud was Berengario da Carpi, who was said to have performed a vaginal hysterectomy in 1517 A.D. (and again at a later date) using the technique his father developed before him.<sup>2</sup> As far back as the 2nd century (100 A.D.) Soranos' case was probably the first of which we have definite evidence.<sup>2, 1</sup> In the course of the following few centuries the operation is said to have been occasionally performed in cases where a prolapse of the uterus made the extirpation both imperatively indicated and reasonably practicable, in conformity with the status of surgery at that time. In 1560 Andrea della Croce performed this operation.<sup>2</sup> During the 17th century several midwives were credited with having amputated prolapsed or inverted puerperal uteri, and early in the 17th century Schenck of Grabenberg reported a series of 26 cases of vaginal hysterectomy.<sup>2</sup>

Conrad Langenbeck's case (1813) was really the first well-planned operation of vaginal hysterectomy purposely undertaken to eradicate uterine cancer. Apparently the first to use ligatures on the broad ligaments, in cases of vaginal hysterectomy, was Sauter in 1822, to be followed in this new technique by Blundell (1828) and Recannier (1829).<sup>2</sup> In 1876 Czerny revived the vaginal-hysterectomy technique of Souter of Constance, and the operation rapidly came into vogue both in Europe and America.<sup>3</sup>

When at the end of last century aseptic surgery became perfected, abdominal hysterectomy was the operation preferred because the chronic appendix could also be removed, and gynaecologists deserted the vaginal attack on pelvic disease. Fortunately of late years, at least in some clinics, the operation has again found its proper place.

## 2. INDICATIONS FOR VAGINAL HYSTERECTOMY

## (a) Functional Uterine Haemorrhage

Under this heading are included metropathia haemorrhagica, irregular shedding and irregular ripening of the endometrium, and subinvolution or those cases described at various times as fibrosis uteri and chronic metritis. In a large number of cases of intractable uterine bleeding, no departure from the normal can be discovered by histological examination. In these cases the uterus may be slightly enlarged and often retroverted. If dilatation and curettage and endocrine therapy fail, as they often do, such cases are preferably treated by vaginal hysterectomy, rather than by the induction of an artificial menopause by radiation. The disadvantages of radiation-induced menopause can be briefly given as follows:

(i) It cannot be used before the age of say 45, without causing

severe menopausal symptoms. Before the age of 40 it is not justifiable.

(ii) Too large a dose will cause a radium burn which becomes a sloughing ulcer; and, even if the dosage is correct, a vaginal gauze pack may slip and cause a radium burn. It never heals and sooner or later may cause serious haemorrhage.

(iii) With too small a dose, for example 1,000 mg.-hours, the bleeding may be worse than before therapy.

(iv) It is possible for post-menopausal bleeding to follow at a long interval after the radiotherapy from the development of a telangiectasis of the endometrium.

(v) There is evidence that the incidence of carcinoma of the body of the uterus is higher in those women who have had intra-uterine radium than in the general population. Corscaden *et al.*<sup>4</sup> reported an incidence of 15 cases of carcinoma of the uterus (9 corpus and 6 cervix) among 958 patients treated for benign uterine bleeding by radiation-induced menopause. They state that in the same number of women in the general population during the same length of time 4.4 should contract carcinoma of the uterus. Smith and Bowden<sup>5</sup> found that in 752 patients treated by irradiation for benign uterine lesions 0.93% developed carcinoma of the endometrium 10 or more years later.

(vi) An early carcinoma may be undiagnosed at the time of radium therapy, in spite of preliminary diagnostic curettage.

(vii) Leucorrhoea, sometimes prolonged, may be a sequel of radium-induced menopause which has caused a radio-endometritis.

(viii) Ovarian sterilization is the basis of X-ray therapy in many non-malignant conditions such as functional uterine haemorrhage. The dosage required is comparatively small and the sterility may be temporary only, and the patient may become pregnant again with possible effects on the offspring, such as hydrocephalus, eye abnormalities and intra-uterine amputations. The immediate damage may be insignificant in comparison with the damage that might be caused to the race by reason of the production of gene mutations. Bagg<sup>6</sup> produced abnormalities in animals similar to those in the human race after pre-conception irradiation.

(ix) A strong argument against radium-induced menopause is that an unhealthy cervix may be left.

In bad-risk cases from an anaesthetic point of view, radiation-induced menopause has a place, provided always that adequate diagnostic curettage has been performed to exclude malignancy. One should be particularly cautious in dealing with cases of menorrhagia where there is a delayed menopause, because a higher incidence of endometrial cancer is said to exist in women with a delayed menopause. Hobbs and Crossen<sup>7</sup> found a delayed menopause to the age of 50 years in 60% of 56 cases of carcinoma of the corpus uteri.

C. M. Gwillim<sup>8</sup> gives as his opinion that vaginal hysterectomy is no more dangerous than the use of radium and the risk of the anaesthetic is similar.

A. M. Sutherland<sup>9</sup> has drawn attention to the fact that in a very large number of women not only is no condition of gross or fine pathology found but curetted endometrium shows no abnormality whatever. He analysed 1,000 cases of functional uterine bleeding, and in over half his cases there was a clinical symmetrical enlargement of the uterus. He divided his cases into 5 categories, viz.:

1. Endometrial hyperplasia 30.8%
2. Irregular shedding of endometrium 1.5%
3. Irregular ripening of the endometrium 3%



4. Endometrial atrophy 1.1%
5. Apparently normal endometrium 63.2%

#### (b) Endometrial Conditions

Under this heading we include senile endometritis and endometrial polypi which have resisted conservative measures, and postmenopausal active hyperplasia of the endometrium, regarded by Novak and Yui as pre-malignant.

#### (c) Fibromyomata of the Uterus

The writer does not undertake vaginal hysterectomy where the uterus is larger than the size of a 12 weeks' cyesis, because of the danger of associated adhesions and the mechanical difficulties encountered during removal. Chronic inflammatory changes in the Fallopian tubes and ovaries are often encountered with fibromatous uteri.

One should not attack from below fibromyomata which are known to be intraligamentary, and caution should also be exercised with cervical fibroids, especially those which have grown into the subvesical space.

Large growths may be removed by morcellation if the operator has acquired the necessary skill, but it is usually unwise.

The not infrequent association between fibromyomata and carcinoma of the corpus is well known. It is usually wise therefore to make a thorough examination under an anaesthetic with diagnostic curettage in all cases of fibromatous uteri for this reason, making sure that all areas of the uterine cavity have been curetted; the examination under anaesthesia will also give valuable information regarding associated pathological conditions in the pelvis and particularly the presence of adhesive processes.

#### (d) Adenomyomata or Adenomyosis

Provided there is no associated pelvic endometriosis, these conditions lend themselves to vaginal hysterectomy. It is said that 10-30% of adenomyomata are accompanied by some degree of pelvic endometriosis. If associated endometriosis is suspected it is better to operate abdominally. In adenomyoma the uterus is rarely enlarged beyond the size of a large orange and the enlargement is usually symmetrical, this being in marked contrast to a uterus which is the seat of multiple fibromyomata. In some cases of adenomyosis there is extra-uterine spread of adenomyoma into the tissues of the broad ligament, uterosacral ligaments and the recto-vaginal septum, and these cases may present considerable difficulties when attacked from the vagina.

#### (e) Pelvic-Floor Relaxations Associated with Uterine Disorder

This is a frequent indication for vaginal hysterectomy and repair. The diseased uterus can thus be removed at the same time as the repair of the prolapse is undertaken; it saves a combined abdomino-vaginal operation or a second operation. There are many gynaecologists today who still prefer to do a total abdominal hysterectomy combined with colporrhaphy, or they do the colporrhaphy at a later date. The writer is convinced that vaginal hysterectomy and repair is the operation

of choice in these cases and the results are most gratifying.

The operative procedure is usually a very easy one because of the lax, capacious vagina and the easy descent of the cervix upon traction.

The advantage of vaginal hysterectomy and repair at one session is obvious to those who have had to do a repair for vaginal prolapse in cases where the uterus had been removed previously.<sup>10</sup>

#### (f) Pelvic-Floor Relaxations without known Uterine Disorder

Here the indication for vaginal hysterectomy is not by any means settled as yet. Certainly in a woman in the child-bearing period the Manchester operation, provided there is no indication for sterilization, remains the operation of choice. What of the older woman who has reached the end of reproductive life? There are those gynaecologists who say that vaginal hysterectomy and repair is the operation of choice for cases of this age in which there is prolapse but a normal uterus, because it is neater and gives a more definite approximation, both of Mackenrodt's ligaments and of the uterosacral ligaments, and supports the vault more efficiently and more easily in the treatment of enterocele,<sup>8</sup> also that when there is a procidentia or when there is a bulky uterus with a long supravaginal cervix the results of the Manchester operation are less satisfactory.<sup>8</sup>

Weaver and Johnson<sup>11</sup> state that any operation to relieve the symptoms due to damaged supports, which leaves the uterus (as in the Manchester, Watkins and le Fort operations), or a portion of the cervix (Spalding-Richardson operation), fails to give the opportunity to inspect, and when necessary, remove, the adnexa, and must be considered an 'incomplete operation'. They point out in response to Sir William Fletcher Shaw (1933),<sup>12</sup> that it is unfortunate that in his follow-up he did not give us some information of the number who later developed carcinoma of the uterus, non-malignant uterine bleeding requiring surgical treatment, and ovarian disease, which might have been eliminated by a 'complete operation' in the first place without increasing the primary mortality rate. They pointedly state that there is a trend towards vaginal hysterectomy and repair even in the British Isles today. Palmer,<sup>13</sup> Hawkins,<sup>14</sup> Veenboer and Kooistra,<sup>15</sup> Danforth and Reynolds,<sup>16</sup> Cadenhead,<sup>17</sup> and Arthure,<sup>18</sup> are all advocates of vaginal hysterectomy and repair.

On the other hand, Shaw (1950)<sup>19</sup> answers the critics of the Manchester repair by stating that those who advocate vaginal hysterectomy and repair write as though the hysterectomy was an essential part of the cure of the prolapse or that the removal of the uterus allows a firmer union of the cardinal ligaments. He emphatically states that the hysterectomy does not improve the effect of the plastic operation, though it may mar it if the deep tissues are not carefully sutured. He states that those who advocate vaginal hysterectomy with the repair must, in doing a Manchester, fail to place the Fothergill's sutures accurately. In his opinion the Manchester operation will cure practically every case, irrespective of age or parity, because it is the logical cure of the con-

dition,  
and da  
Te L  
operati  
scensio  
but the  
there is

3. co

(a) Ma

This  
indicat  
Scha  
tomy  
proced  
Bast  
British  
Leeds,  
place i  
He arg  
so pro  
He giv  
tients  
Amste  
and 19  
pared  
by ab  
the vag  
is squ  
cancer  
also th  
only e  
that i  
furthe  
directl  
It is h  
much  
hyster  
operat  
preven  
vagina  
vault  
terect  
3 case  
vagina  
tomy.

(b) T

(i)  
under  
that  
avoid  
(ii)  
(a)  
tions  
(B)  
toniti  
(y)  
be en  
In  
surge



dition, which occurs only when the pelvic floor is weak and damaged.

Te Linde and Richardson<sup>20</sup> state that the Manchester operation does very well with 1st-degree uterine descensions and at times even 2nd-degree descensions, but they do not consider it a logical procedure where there is complete procidentia.

### 3. CONTRA-INDICATIONS TO VAGINAL HYSTERECTOMY

#### (a) Malignant Disease

This is regarded by the writer as an absolute contra-indication.

Schauta<sup>21</sup> has proposed a radical vaginal hysterectomy for malignant disease of the cervix, but this procedure has become obsolete.

Bastiaanse,<sup>22</sup> in his guest paper read at the 13th British Congress of Obstetrics and Gynaecology at Leeds, makes a plea that vaginal hysterectomy has a place in the treatment of carcinoma of the corpus uteri. He argues that the clinically inoperable group, which is so prominent in many statistics<sup>23</sup> is almost non-existent. He gives an operability rate of 96.2% out of 264 patients with carcinoma of the corpus admitted to the Amsterdam University's Women's Clinic between 1938 and 1951. His primary mortality rate was *nil* as compared with a primary mortality of 1 in 33 cases treated by abdominal hysterectomy. The usual objection to the vaginal route in cases of malignancy is that the uterus is squeezed during the course of operation, giving the cancer cells a chance to become implanted in the vagina; also that the clamps placed on the Fallopian tubes are only employed late in the operation. Bastiaanse states that in the vaginal operation the cervix is brought further and further to the outside and one can also see directly when secretion escapes from the cervical canal. It is his opinion that the chance of implantation must be much less after a vaginal operation than after abdominal hysterectomy, because suturing of the cervix pre-operatively in the latter operation will not always prevent the extrusion of these cells. Follow-up of 217 vaginal hysterectomies revealed one recurrence in the vault of the vagina, whereas in the 33 abdominal hysterectomies a recurrence in the vault was discovered in 3 cases. He gives his 10-year cure rate as 70.2% for vaginal hysterectomy and 57.1% for abdominal hysterectomy.

#### (b) Technical Difficulties due to:

(i) *The Size of the Uterus.* This was discussed above under *Fibromyomata*. In addition it must be stated that if the exact pathology is doubtful it is better to avoid the vaginal approach.

##### (ii) Adhesions:

(a) Adhesions caused by previous abdominal operations on pelvic organs.

(β) Adhesions caused by pelvic or generalized peritonitis. The history is important.

(γ) Endometriosis. Insurmountable difficulties may be encountered in these cases.

In patients known to have had previous abdominal surgery a vaginal approach must be carefully weighed,

but it should be recognized that even extensive pelvic operations do not necessarily prevent comparatively easy removal of the uterus from below.<sup>24, 25, 26</sup> The chief contra-indication to a vaginal removal of the uterus is a cervix so fixed that the uterine vessels cannot be ligated satisfactorily.

(iii) *Narrow Vagina.* To a large extent the experience of the operator is the deciding factor here, and also the use of the correct instruments. Another factor is the amount of descent of the cervix.

#### (c) Ovarian Tumours

If an ovarian tumour of considerable size is present in a patient for whom hysterectomy is indicated, the abdominal route is preferable. Since one cannot be absolutely certain about the character of the tumour, it is better to avoid the vaginal approach. Puncture of either a dermoid or an unsuspected carcinomatous cyst is disastrous.

#### (d) Post-menopausal Bleeding

In cases where malignancy cannot definitely be excluded, even after thorough curettage, it is better to use the abdominal approach, when a 'good look around' inside the abdomen can take place.

### 4. TECHNIQUE

The various techniques used are legion and may be found in the standard text-books. The writer has found the following of practical service to him:

(a) The use of 1 : 100,000 adrenaline solution (1 cc. of 1 in 1,000 adrenalin added to 100 cc. of normal saline). This solution, when injected into the paracervical tissues, is of inestimable advantage in aiding haemostasis. In fact the writer uses it for all vaginal plastic operations; and it is absolutely safe in his experience. Forty c.c. of this solution is usually adequate.

(b) By making the initial circular incision around the circumference of the cervix through the vaginal mucosa as low as possible, in all except cases of procidentia, the vaginal canal will not be unduly foreshortened. This practical point is of importance where marital relationships still exist.

(c) The use of a 2-lb weight hooked on to the forceps holding the ends of the traction sutures in the cervix, helps considerably in the descent of the cervix and gives the assistant a free hand for other work.

(d) If the utero-vesical pouch of peritoneum cannot be visualized owing to lack of descent, then time should not be wasted looking for it by further manipulations and dissections, but the utero-rectal pouch of peritoneum should be opened, when a finger inserted into the pouch and curved over the fundus or the upper edge of the broad ligament will readily reveal the identity of the utero-vesical pouch.

(e) A bulky uterus which cannot be easily delivered should be bisected, commencing at the cervix in the mid-line.

(f) Ligatures on the utero-sacral ligaments should not be tied whilst the latter are on the stretch; the pull on the cervix should be relaxed to allow of accurate

and firm ligation and it is better, after using the aneurysm needle to apply the suture, to transfix one end through the substance of the utero-sacral fold to ensure that it does not slip.

(g) Clamping of the broad ligament is a step which should be taken with the utmost care and it is better to use a Kocher's (straight) forceps plus a Spencer-Wells' on each side, because the broad ligament is often too bulky for a single Kocher's forceps and slipping of the pedicle takes place, with consequent haemorrhage not easily controlled owing to retraction into the peritoneal cavity of the slipped portion.

(h) More frequent use of the bladder sound should be made, especially in cases of large cystocele where the bladder comes right down almost to the level of the external os, or of an excessively adherent bladder.

(i) The traction sutures should be placed on the cervix in such a way that the two outside ones are well lateral in order to gain an even pull on the organ; this thus puts the paracervical tissues on the stretch more readily.

(j) To prevent enterocoele, even in simple vaginal hysterectomy where no pelvic floor relaxation is present, it is important: (i) to approximate the utero-sacral ligaments across the mid-line (it is of advantage also to suture the vesico-vaginal fascia to the conjoined utero-sacral ligaments); and (ii) to excise any redundant peritoneum which suggests sac formation, and any redundant vaginal mucosa at the vault which may suggest incipient enterocoele formation.

(k) The post-operative use of 'Furacin soluble' dressing on the perineal suture line has considerably helped healing of the perineum.

(l) The prophylactic administration of urinary antiseptics in those cases which post-operatively show a residual urine of 2 oz or more.

(m) Early ambulation in the older patients, with daily search for possible thrombotic phenomena.

### 5. CONCLUSION

Vaginal hysterectomy is a most gratifying operation, to both patient and surgeon alike. Holding no brief for surgical gymnastics such as the removal of huge fibromyomatous uteri through the vagina, the writer feels that many cases are more safely dealt with from below, particularly the obese, the cardiac, the diabetic and the elderly. In fact, most poor-risk patients will withstand a vaginal removal of the uterus more safely than by the abdominal route. Most anaesthetists prefer the vaginal to the abdominal approach in cases which present an anaesthetic problem.

The safety of the operation is demonstrated by the mortality rate of 0.31% in 13,939 vaginal hysterectomies performed by 15 gynaecologists working in different clinics in America.<sup>25</sup>

Besides the low mortality rate the operation has the following advantages over total abdominal hysterectomy:

(a) Decreased incidence of operative shock.

(b) Decreased incidence of embolism.<sup>11</sup>

(c) Decreased incidence of bladder and ureteral injuries.<sup>11</sup> Many authorities, however, will disagree with this.

(d) Decreased incidence of abdominal distension and of intestinal obstruction.

(e) Complete absence of wound disruption and of post-operative incisional hernia.

(f) The saving of a second or double operation in cases requiring removal of the uterus plus colporrhaphy.

(g) No ugly abdominal scar.

Total abdominal hysterectomy and vaginal hysterectomy each have their respective places in gynaecological surgery and every surgeon should be equipped to perform either with confidence.

Heany<sup>3</sup> wrote: 'It is interesting to note how those who persist in perfecting themselves in the technique of vaginal hysterectomy gradually disregard more and more of the contra-indications so consistently laid down by those with little or no familiarity with the operation'.

One may perhaps say about this that complacency will only lead the operation into disrepute and strict acceptance of the indications and contra-indications will perpetuate the operation and confirm Werner's apt remark that 'the vagina is a God-given passage to the pelvic organs.'<sup>27</sup>

### SUMMARY

1. The indications and contra-indications of vaginal hysterectomy are discussed.

2. Malignant disease of the uterus has always been regarded as an absolute contra-indication to vaginal hysterectomy, but recently Bastiaanse has presented evidence of the place of the operation in cancer of the corpus uteri.

3. Points in technique found to be of service to the writer are discussed.

4. The safety of vaginal hysterectomy is stressed and its advantages over total abdominal hysterectomy are listed, particularly the saving of a second or double operation in cases requiring removal of the uterus plus colporrhaphy.

I wish to express my gratitude to Mr. Harold Renton, M.A., M.D., M.R.C.O.G., head of the Gynaecological Department at Addington Hospital, Durban, for the unselfish way in which he taught me his technique of vaginal hysterectomy and repair and his constant encouragement and guidance.

### REFERENCES

1. Fenner, C. (1882): Amer. J. Med. Sci., **165**, 2.
2. Leonardo, R. A. (1944): *History of Gynaecology*. New York: Froben Press.
3. Heany, N. S. (1949): Surg. Gynec. Obstet., **89**, 94.
4. Corscaden, J. A., Fertig, J. W. and Gusberg, S. B. (1946): Amer. J. Obstet. Gynec., **51**, 1.
5. Smith, F. R. and Bowden, L. (1948): Amer. J. Roentgenol., **59**, 796.
6. Bagg, H. C. (1929): Amer. J. Anat., **43**, 167.
7. Hobbs, J. R. and Crossen, R. J. (1935): J. Amer. Med. Assoc., **32**, 361.
8. Gwillim, C. M. (1950): *Modern Trends in Obstetrics and Gynaecology*, p. 672. London: Butterworth.
9. Sutherland, A. M. (1949): Glasg. Med. J., **30**, 1.
10. Hamilton, J. (1943): J. Obstet. Gynaec. Brit. Emp., **50**, 185.
11. Weaver, R. T. and Johnson, F. L. (1951): Amer. J. Obstet. Gynec., **62**, 1117.
12. Shaw, W. F. (1933): Amer. J. Obstet. Gynec., **26**, 667.
13. Palmer, A. C. (1948): Proc. Roy. Soc. Med., **41**, 676.
14. Hawkins, J. (1948): *Ibid.*, **41**, 676.

15. Veer  
Obst  
16. Dan  
North  
17. Cad  
18. Arth  
19. Sh  
col  
20. Te  
Gyn

Mitral  
carditis  
of the  
or 3rd  
occurr  
operat  
lesion  
is mitr

The  
operat  
of the  
years  
aged 1  
descri  
progr  
valvot  
It is  
the ag  
was c  
these

Case  
Hospit  
palpita  
dyspno  
and lo  
at sch  
in the  
On  
The  
into t  
1st sc  
mitral  
apex  
right  
An  
finer  
prom  
vessel  
auricl  
the ri  
be en

15. Veenboer, W. H. and Kooistra, H. P. (1947): Amer. J. Obstet. Gynec., **53**, 936.
16. Danforth, W. C. and Reynolds, R. A. (1948): Anat. Bull. Northw. Univ. Med. Sch., **22**, 232.
17. Cadenhead, E. F. (1951): J. Int. Coll. Surg., **15**, 57.
18. Arthure, H. S. E. (1949): Proc. Roy. Soc. Med., **42**, 388.
19. Shaw, W. F. (1950): *Modern Trends in Obstetrics and Gynaecology*, p. 648. London: Butterworth.
20. Te Linde, W. and Richardson, E. H. (1943): Amer. J. Obstet. Gynec., **45**, 29.
21. Schauta quoted by Phaneuf, L. E. (1949): Surg. Gynec. Obstet., **89**, 92.
22. Bastiaanse, M. A. v.B. (1952): J. Obstet. Gynaec. Brit. Emp., **59**, 611.
23. Heyman, J., Rentewall, O. and Benner, S. (1941): Acta radiol., **22**, 11.
24. Eastman, O. N. (1948): N.Y.St. J. Med., **48**, 49.
25. Campbell, Z. B. (1946): Amer. J. Obstet. Gynec., **52**, 598.
26. Waugh, John M. (1943): J. Indiana Med. Assoc., **36**, 537.
27. Werner, Paul (1929 and 1931): Surg. Gynec. Obstet., **49**, 363, and **52**, 233.

## MITRAL VALVOTOMY IN THE YOUNGER AGE-GROUPS

BERTRAM A. BRADLOW, M.D. (RAND), M.R.C.P., M.R.C.P.E.

AND

G. R. CRAWSHAW, M.D. (VICT.), F.R.C.S.

Johannesburg

Mitral stenosis represents an end stage of rheumatic carditis. It takes 5-15 years to develop after the onset of the initial attack, and usually occurs during the 2nd or 3rd 5-year period after the initial attack.<sup>8</sup> Thus the occurrence of tight mitral stenosis of a type suitable for operation is unusual under the age of 16 years. The usual lesion in the 1st decade and early part of the 2nd decade is mitral incompetence.<sup>2</sup>

There are very few reports of mitral valvotomy operations on patients under the age of 16 years. Most of the large series include patients from the age of 18 years and over.<sup>1, 6, 9</sup> Logan and Turner<sup>1</sup> have one case aged 16 years in their 100 cases. Lurie and Shumacker<sup>2</sup> described 3 cases aged 12, 14 and 15 years in which progressive symptoms and disability led to mitral valvotomy.

It is therefore worth recording 4 further cases between the ages of 7 and 14, where predominant mitral stenosis was diagnosed and valvotomy performed. Three of these cases were aged 14 years and one was aged 7 years.

### CASE RECORDS

*Case 1.* G.D., a 7-year-old Bantu, was admitted to Baragwanath Hospital under Dr. E. Kahn on 28 April 1953, with a history of palpitations and cough for 6 months. One week before admission dyspnoea became severe and sweating occurred. The face, feet and lower abdomen became swollen and the child fainted 3 times at school. Six months before admission he had a fever, with pain in the right knee.

*On admission* he was in a state of congestive cardiac failure. There was a prominent left parasternal heave extending out into the axilla. On auscultation in the axilla there was a loud 1st sound, a mid-diastolic rumble and an opening snap of the mitral valve. There was no systolic murmur, but medial to the apex a systolic murmur was audible. An electrocardiogram showed right ventricular predominance and a mitral P wave.

An X-ray showed an enlarged heart. The enlargement was confined to the right ventricle. The pulmonary-artery segment was prominent. There was peripheral attenuation of the pulmonary vessels suggesting pulmonary hypertension. The enlarged left auricle caused an indentation of the barium-filled oesophagus in the right anterior oblique view. The right auricle also appeared to be enlarged. (Figs. 1 and 2).

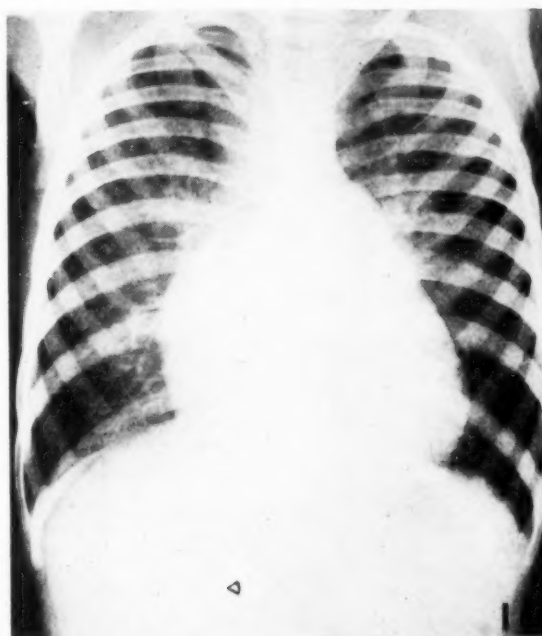


Fig. 1. Case 1: Postero-anterior teleradiogram—Showing selective enlargement of right ventricle, and prominence of pulmonary artery segment.

The child improved on bed rest and the usual treatment with digitalis and mercurial diuretics, but whenever he got out of bed he again went into failure. The erythrocyte sedimentation rate varied, but at one stage was 21 mm. in 1 hour (Westergren).

*Operation.* Mitral valvotomy was performed on 26 August 1953 by Mr. J. C. v. d. Spuy. A lateral approach was used. The left atrium was large and tense. The mitral valve was funnel-shaped, the orifice being one-eighth of an inch in diameter. The anterior cusp was long and mobile and the posterior cusp was short and thick. The orifice was posterior in position. The valve split easily

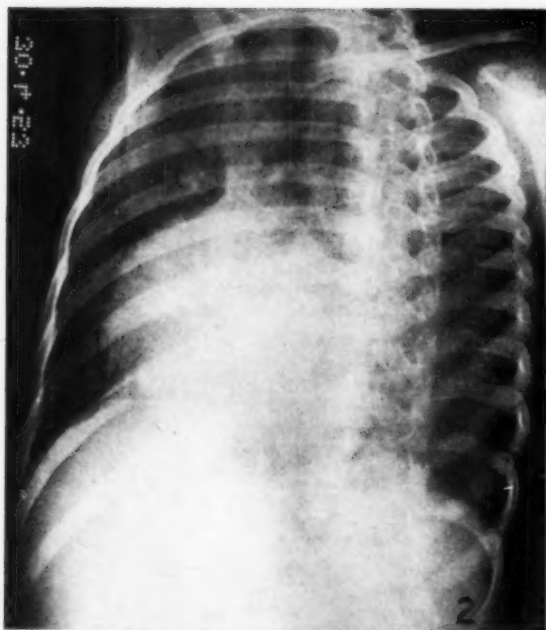


Fig. 2. Case 1: Left anterior oblique view. This plate shows the enlargement of the right ventricle.

with finger fracture and the diameter of the orifice was increased to seven-eighths of an inch. There was no apparent regurgitation.

A lung biopsy was taken and showed moderate haemosiderosis.

Convalescence was smooth and 14 days after the operation, the child was running about the corridors with other children, and was free of dyspnoea.

The improvement was subsequently maintained.

**Case 2.** P.M., a 14-year-old Mosotho male, was admitted to Baragwanath Hospital on 30 July 1953 under Mr. L. Fatti. He had become ill in February 1952 and was in bed for a month without any medical attention. After this he was well until 3 weeks before admission. He attended school and played football but found that he was somewhat breathless while dribbling the ball. Three weeks before admission he noticed severe breathlessness on effort. This became worse and at the time of admission he could barely walk two blocks. Exercise produced frontal headache, giddiness, and a feeling of faintness. Exertion also caused praecordial pain. He did not complain of cough and had never suffered from haemoptysis.

*On examination* he was small for his age and very thin. He was not pyrexial. The radial pulse was small. There was no cyanosis.

The jugular venous pressure was normal.

The maximal cardiac impulse was in the 6th intercostal space in the mid-clavicular line, and appeared to be thrusting. There was a marked left parasternal heave. On auscultation at the apex the 1st sound was loud, there was an opening snap of the mitral valve, and a loud mid-diastolic and presystolic murmur was heard. The pulmonary 2nd sound was accentuated and normally split.

The liver was not palpable and no adventitious sounds were heard at the lung bases. There was no ankle oedema.

*Radioscopy* (Fig. 3). The heart was not enlarged. The cardio-thoracic ratio was 49.5%. In the postero-anterior view the pulmonary-artery segment was prominent, and the left atrial appendage was visible on the left heart border. A double density of an enlarged left auricle was seen and confirmed by an indentation in

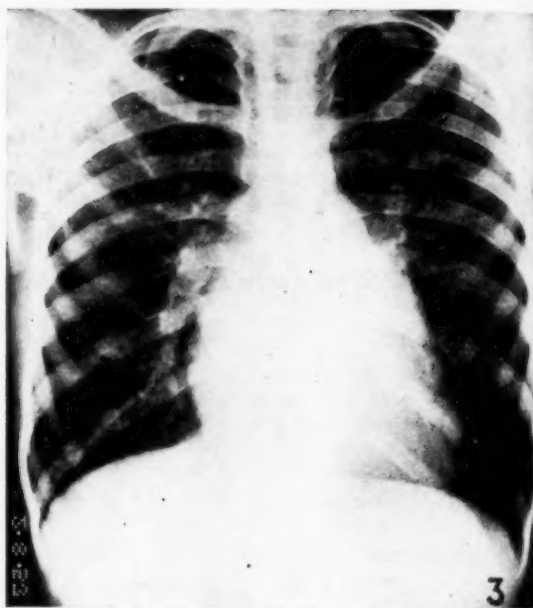


Fig. 3. Case 2: This shows a double density due to the enlarged left auricle, and a prominence of the pulmonary artery segment.

the barium-filled oesophagus in the right oblique view. The pulmonary vessels especially at the bases were attenuated. There were early signs of pulmonary haemosiderosis and horizontal linear shadows as described by Kerley<sup>3</sup> were visible in the right costophrenic angle.

*The electrocardiogram* showed right axis deviation in the standard leads with a mitral P wave. There was considerable right ventricular preponderance best seen in lead AVR and lead V<sub>1</sub>. (Fig. 4).

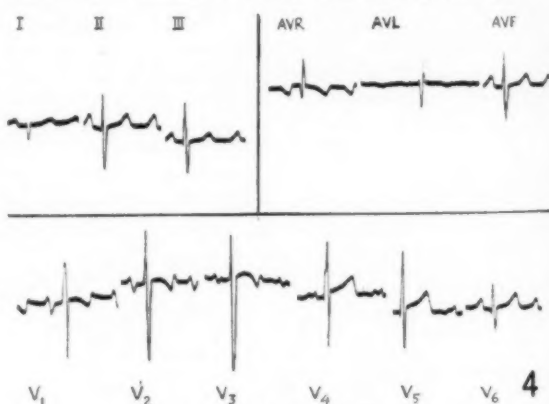


Fig. 4. Case 2.

Blood cultures yielded no growth.

*At operation* on 26 August 1953 (Mr. v. d. Spuy) the left atrium was much enlarged. The mitral valve was funnel-shaped and elastic. The orifice was three-sixteenths of an inch in diameter. The anterior cusp was long and mobile, and the posterior cusp was short and thick. There was no regurgitation. The valve split easily and the orifice was seven-eighths of an inch in diameter after

splitting b  
thrill was  
lung biops

After th  
a tempera  
This was  
but the re  
there was  
two small  
Langhan's  
cells. Aci  
stained p  
tuberculos  
Research)  
streptomy  
temperatu  
the patient

After 6  
later was  
reported  
lost sight

Case 3  
wanath H  
complains  
exercise.  
noetic on  
of cough  
sionally b  
right hyp  
swelling.

On ex  
pressure  
blood pro

The m  
in the m  
apex. Th  
tion the  
rumbling  
of the m  
accentua

The liv  
at the lu  
enlarged

Radios  
region. T  
appenda  
was enla  
filled oes  
was obvi

The el  
The P w  
dence of

I

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting

splitting



splitting both commissures. Before splitting the valve a diastolic thrill was felt over the left ventricle. The lungs were tense and a lung biopsy was taken.

After the operation the boy appeared well, but was still running a temperature ranging between 100° and 103° F on 4 September. This was thought to be due to a small left-sided pleural effusion, but the report of the lung biopsy received on 5 September stated there was patchy atelectasis, slight haemosiderosis, and one or two small granulomatous foci consisting of epithelioid cells and Langhan's giant cells and surrounded by lymphocytes and plasma cells. Acid-fast and alcohol-fast bacilli were not demonstrated in stained preparations, but the histological features suggested tuberculosis (Dr. W. J. Pepler, South African Institute of Medical Research). In view of this report the patient was treated with streptomycin,  $\frac{1}{2}$  g. daily, and Rimifon, and by 7 September the temperature was normal and remained so until 26 September when the patient was transferred to another hospital.

After 6 weeks in that hospital he was discharged, and 3 months later was free of dyspnoea and had gained weight, and his mother reported that he had grown a lot. Unfortunately he has been lost sight of since.

**Case 3.** This 14-year-old Xosa girl was admitted to Baragwanath Hospital under Dr. V. Wilson on 4 May 1954. Her main complaint was pain in the left praecordium which occurred after exercise. It was relieved by rest. For one year she had been dyspnoeic on mild effort and after exercise occasionally got an attack of coughing productive of white frothy sputum, which was occasionally blood-tinged. She sometimes experienced a pain in the right hypochondrium. There was no history of joint pain or swelling.

On examination she was not pyrexial. The jugular venous pressure was normal. The radial pulse was regular and full. The blood pressure was 140 mm. Hg. systolic and 75 mm. diastolic.

The maximal cardiac impulse was palpable in the 5th interspace in the mid-clavicular line. A diastolic thrill was palpable at the apex. There was a well-marked left parasternal lift. On auscultation the apical 1st sound was loud. There was a mid-diastolic rumbling murmur with presystolic accentuation. An opening snap of the mitral valve was not audible. The pulmonary 2nd sound was accentuated.

The liver was not palpable and there were no adventitious sounds at the lung bases. There was no ankle oedema. A few small enlarged lymph nodes were palpable in the axilla.

Radioscopy showed prominent pulmonary arteries in the hilar region. The heart did not appear to be enlarged. The left auricular appendage was visible on the left heart border. The left auricle was enlarged in the left oblique view and indented the barium-filled oesophagus in the right oblique view. The right ventricle was obviously enlarged in the left oblique view.

The electrocardiogram showed a mitral P wave in leads I and 2. The P wave in lead VI was large and diphasic. There was no evidence of ventricular hypertrophy. (Fig. 5).

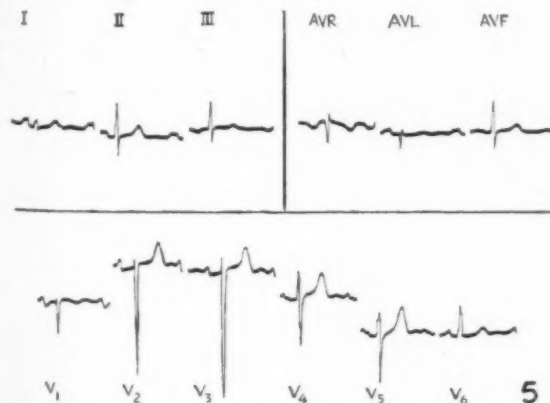


Fig. 5. Case 3.

A full blood count on 5 May was normal, the E.S.R. was 11 mm. in 1 hour (Westergren). The C-reactive protein was 2+ positive.

**Operation.** On 19 May mitral valvotomy was performed by Mr. L. Fatti. The left atrium was considerably enlarged. The left ventricle appeared normal. The left auricle was entered without difficulty through the left atrial appendage. The mitral valve was tightly stenosed and diaphragmatic in type, the orifice being three-eighths of an inch in diameter, and the cusps were elastic and billowing. A valvotome was used to cut the lateral commissure and for blunt dissection to open the medial commissure. The final orifice of the mitral valve was 1 inch in diameter and there was no regurgitation. A well-marked diastolic apical thrill on the left ventricle disappeared at the end of operation.

The post-operative course was smooth apart from moderate pyrexia on the first 3 post-operative days. On discharge on 15 June 1954 no mid-diastolic murmur was audible and effort tolerance was good.

**Case 4.** This 14-year-old European boy was admitted to a private hospital under Mr. L. Fatti on 30 January 1954.

He had suffered an attack of rheumatic fever at the age of 4 years, and had been breathless since then. He had been admitted to Pietersburg Hospital several times for acute cardiac failure, and twice (1952 and 1953) was thought to have pulmonary infarction. On one occasion in 1952 he was pyrexial, and although blood cultures were negative he was treated as a subacute bacterial endocarditis. He contracted frequent attacks of bronchitis in the winter, and during these attacks became very short of breath.

On admission he stated that he could only walk 100 yards on the level, and could barely climb one flight of stairs. He slept on three pillows. On walking he complained of dull substernal pain. This did not radiate, but it caused him to stop walking until it passed off—usually in about 1 minute. In 1948 he had oedema of the legs but this had not recurred since. In January 1953 he developed acute appendicitis, which was treated conservatively because of his heart condition. This settled down without any further trouble.

He was taking digoxin, 0.25 mg. twice daily, and 0.5 g. of sulphatriad daily, but had not had any mercurial diuretic injections for some months before admission.

On examination at admission there was slight peripheral cyanosis of the fingers and toes. There was deep jugular venous pulsation, mainly systolic, suggesting tricuspid incompetence. The jugular venous pressure was normal. The radial pulse was regular and slightly collapsing. The blood pressure was 110 mm. Hg. systolic and 70 mm. diastolic.

There was a praecordial 'bulge'. A diastolic shock was palpable over the pulmonary artery. There was a marked left parasternal lift, and the apical impulse was a diffuse heave in the axilla suggesting right ventricular enlargement. On auscultation at the apex a scratchy grade-2 systolic murmur was heard. This varied in intensity from day to day. A grade-3 mid-diastolic and presystolic rumbling murmur was audible in the axilla, and the 1st sound at the apex was loud and snapping. Just medial to the apex an opening snap of the mitral valve was audible but soft. The 2nd sound at the 2nd left intercostal space was loud and normally split, the 2nd component being accentuated. A grade-2 early diastolic murmur was present at the left sternal border.

The chest was barrel-shaped. A few high-pitched rhonchi were heard at the bases. The liver edge was palpable 2 finger-breadths below the costal margin and at times systolic pulsation was present. The spleen was palpable 2 finger-breadths below the costal margin.

An electrocardiogram showed a severe degree of right ventricular hypertrophy (Fig. 6).

Laboratory investigations including serum muco-proteins, full blood-count, C-reactive proteins and several E.S.R. estimations gave normal results.

X-ray showed a small aortic knuckle, prominent pulmonary-artery segment, an enlarged left auricle and right ventricle, and considerable cardiac enlargement. The lung fields showed haemosiderosis, peripheral attenuation of the pulmonary vasculature and some Kerley B-lines in the right costophrenic angle suggesting

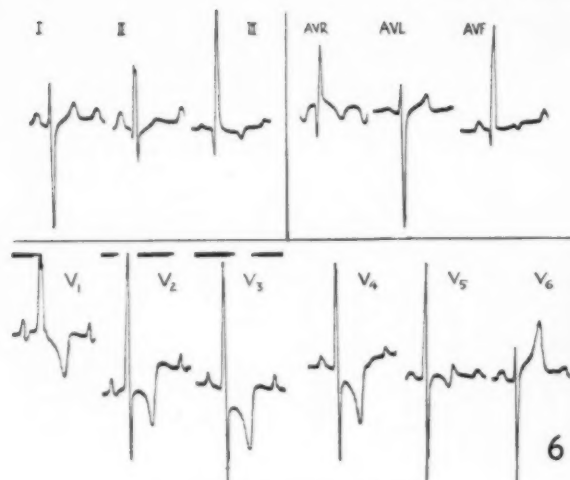


Fig. 6. Case 4: 25 February 1954.

severe pulmonary hypertension. Serial X-rays over 6 years showed progressive cardiac enlargement. (Figs. 7 and 8).

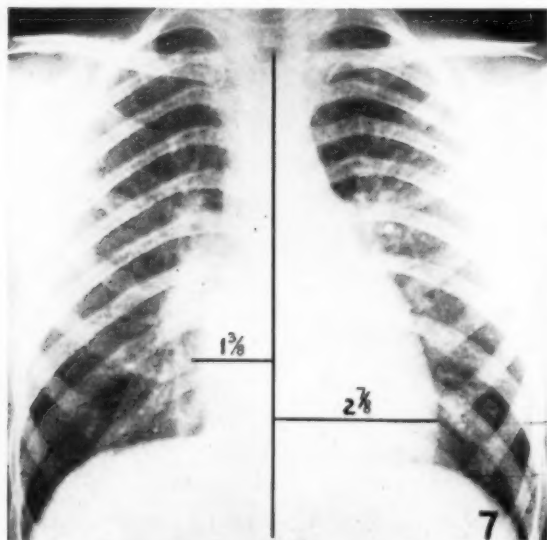


Fig. 7. Case 4: 16 October 1948. Figs. 7 and 8 show the progressive changes in size and shape of heart.

Operation was performed on 12 May by Mr. G. R. Crawshaw. The approach was through the 4th left intercostal space. The left atrium was large and tense. Both the mitral cusps were soft and mobile. The valve orifice was postero-lateral in position and oval in shape, being  $\frac{1}{2}$  inch by one-eighth of an inch. The valve split easily along the commissures with finger fracture and the post-operative size was  $1\frac{1}{2}$  by 1 inch, with no regurgitation. The right ventricle was seen to be very large and the lungs were stiff and showed pigmented subpleural spots, sparing the apices. A lung biopsy showed haemosiderosis and early endarteritis in the arterioles. A section of the atrial appendix showed slight perivascular fibrosis but no evidence of active rheumatic disease.

The post-operative course was smooth, but was interrupted on the 15th post-operative day by an attack of acute appendicitis.

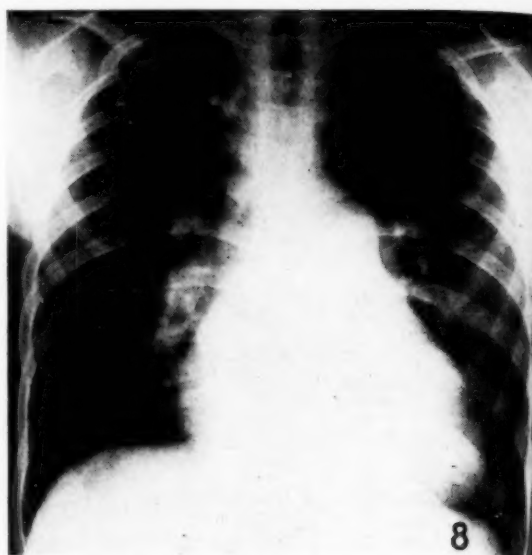


Fig. 8. Case 4: 4 March 1954. See Fig. 7.

This was dealt with by operation (Mr. R. Frylinck) and subsequent recovery was uneventful. The boy's exercise tolerance improved dramatically and 10 days after his appendicectomy he walked a quarter-mile without any fatigue. A grade-I mid-diastolic rumble was audible at the cardiac apex but there was no evidence of an opening snap.

He was discharged on a maintenance dose of digoxin and oral penicillin (Bicillin), the latter to be continued for 2 years.

On 28 August 1954 Dr. F. A. B. Lombard reported from Pietersburg that the patient had had 3 severe pyrexial attacks—2 in April and 1 in July—during which he complained of severe pain in the left side of the chest and dyspnoea. Tachycardia and cyanosis were present. In the attacks in April there were no chest signs. He was treated with large doses of antibiotics and recovery occurred in about 48 hours each time. In July clinical examination and radiography showed consolidation in the left upper lobe. Terramycin was administered and he responded well, being pyrexial for only 3 days. Apart from these attacks he was well and was riding his bicycle. He had gained 25 lbs. in weight and his height had increased by  $4\frac{1}{2}$  inches since the operation. Dr. Lombard remarked



Fig. 9. Case 4: 18 August 1954.

that 'there and physi cardiogram showed no still presen

Comme general th uncomm may have ziasis in v splenome is no ev pyrexial i mitral val and has b fever, or

These 4 all pres and 4) pulmon paroxys (cases 2 these p valvoto objectiv

It is be perf caution because risks o re-activ fever a further However enough held. I activat itself n rheuma

Dr. T. I Cape, o Church Middell At th of the J. W. A Dr. Sar culture Dr. S F.R.C.S.

'Sulme Ltd. a oral S tion co and b routine of pen

that 'there is no doubt that this young man's whole life—mentally and physically—has been improved by operation'. The electrocardiogram (Fig. 9) showed considerable improvement. An X-ray showed no material change in heart size. The haemosiderosis was still present.

**Comment.** This case shows several interesting features. In general the occurrence of anginal pain in mitral stenosis is not uncommon, but at this age it must be unusual.<sup>4</sup> The splenomegaly may have been due to some associated condition such as bilharziasis in view of his residence in the North-Eastern Transvaal, but splenomegaly can occur in long-standing congestive failure. There is no evidence of subacute endocarditis. The post-operative pyrexial incidents in April are of the type known to occur after mitral valvotomy in 10-20% of patients.<sup>7,9</sup> Its aetiology is unknown, and has been explained on the basis of re-activation of rheumatic fever, or of pericardial foreign-body reactions.

#### DISCUSSION

These 4 cases show various features of interest. They all presented indications for valvotomy. Two (cases 1 and 4) were in congestive cardiac failure due to high pulmonary vascular resistance,<sup>9</sup> while 2 had attacks of paroxysmal dyspnoea or pulmonary oedema on effort (cases 2 and 3). It is extremely unlikely that any of these patients would have survived very long without valvotomy, and all showed considerable subjective and objective improvement after operation.

It is usually said that mitral valvotomy should not be performed below the age of 17 years, and that great caution should be exercised up to the age of 20 years, because active or latent rheumatic carditis increases the risks of operation and the rheumatic state may be re-activated; furthermore, recurrences of rheumatic fever are more common in adolescence and may cause further valvular damage in the years after operation. However, it is agreed that if the mitral stenosis is severe enough to threaten life, operation should not be withheld.<sup>1</sup> There is no real evidence that operation re-activates a rheumatic process,<sup>1</sup> and mitral stenosis in itself may be a more dangerous condition than the rheumatic fever. While overt acute rheumatic fever

would contra-indicate operation, a latent or doubtful state of rheumatic activity should not interfere with the decision to operate if real indications are present. Should rheumatic fever recur, with recurrence of mitral stenosis, a further valvotomy can, in many cases, be performed.

#### SUMMARY

- (1) Mitral stenosis is rare under the age of 16 years.
- (2) If the mitral stenosis threatens life, valvotomy should be performed whatever the age.
- (3) Doubtful or latent rheumatic fever is not a contra-indication to operation.
- (4) Four cases, aged 14 and under, who have undergone successful valvotomy are described.

We should like to acknowledge our indebtedness to Mr. P. Shreve and Mr. A. Shevitz of the Department of Medicine, University of the Witwatersrand, for the mounting of the electrocardiographs and for the reproductions of the X-ray plates respectively. We thank Dr. J. D. Allen and Dr. K. Mills, Superintendents, for permission to publish the case histories, and Dr. E. Kahn, Dr. V. Wilson and Mr. L. Fatti for allowing us to study their patients.

#### REFERENCES

1. Baker, C., Brock, R. C., Campbell, M. and Wood, P. (1952): *Brit. Med. J.*, **1**, 1044.
2. Coombs, C. F. (1924): *Rheumatic Heart Disease*, p. 376. Bristol: J. Wright and Sons, Ltd.
3. Kerley, P. (1951): *Textbook of X-ray Diagnosis*, 2nd ed., vol. 2, pp. 68 and 404.
4. Logan, A. and Turner, R. (1953): *Lancet*, **1**, 1007.
5. Lurie, P. R. and Shumacker, H. B. (1954): *Pediatrics*, **13**, 454.
6. Sellors, T. H., Bedford, D. E. and Somerville, W. (1953): *Brit. Med. J.*, **2**, 1059.
7. Soloff, L. A., Zatachni, J., Janton, O. H., O'Neill, T. J. E. and Glover, R. P. (1953): *Circulation*, **8**, 481.
8. Walsh, B. J., Bland, E. F. and Duckett Jones, T. (1940): *Arch. Intern. Med.*, **65**, 321.
9. Wood, P. (1954): *Brit. Med. J.*, **1**, 1051.

#### DEATH OF DR. T. L. LINDSAY SANDES

Dr. T. L. Lindsay Sandes died peacefully at his home at Claremont, Cape, on 25 June 1955. The funeral service was held at St. Saviour's Church, Claremont, on 27 June, and the burial is to take place at Middelburg, C.P.

At the memorial service many members of the profession and of the Association were present. It was conducted by the Rev. J. W. Aubrey, Rector of Claremont, who referred eloquently to Dr. Sandes' services to humanity, his domestic virtues and to the culture and charm which were conspicuous in his personality.

Dr. Sandes, who held the degrees M.A., M.D. (Univ. Dubl.), F.R.C.S. (Irel.), F.R.C.S. (Eng.), had a distinguished career as a

surgeon in private practice and at Groote Schuur Hospital and the University of Cape Town, and was well known and beloved by members of the Medical Association of South Africa because of his long connexion with the Association, in which he took a leading part for many years.

He was president of the Association for two terms from 1932 to 1938, chairman of the Head Office and Journal Committee for many years, and President of the Cape Western Branch in 1928.

An In Memoriam article will be published in a later issue of the *Journal*.

#### NEW PREPARATIONS AND APPLIANCES : NUWE PREPARATE EN TOESTELLE

'Sulmezil' Oral Suspension, I.C.I. South Africa (Pharmaceuticals) Ltd, announce the availability in South Africa of 'Sulmezil' oral Suspension and submit the statement below: This preparation combines in one convenient dosage form 'Sulphamezathine' and benzathine penicillin which is the best sulphonamide for routine treatment and the most stable and longest-acting salt of penicillin, giving reliable absorption and effective blood levels.

The manufacturers' statement adds: The suspension is pleasantly flavoured and free from the characteristic taste of either penicillin or sulphonamide. It is a stable preparation and particularly suitable for combined therapy in children.

'Sulmezil' Oral Suspension is issued in 50-c.c. bottles containing 14 teaspoonful doses. Each teaspoonful (3.5 c.c.) contains 0.5 g. of 'Sulphamezathine' and 150,000 units of benzathine penicillin.

It has been shown experimentally that penicillin ensures an initial rapid decline in the number of living bacteria to a level at which the sulphonamide can exert its full effect, and so bring about a complete extinction of the organisms. In addition to the enhanced antibacterial effect, there is also less likelihood of the development

of strains of bacteria resistant to either penicillin or the sulphonamide.

In those conditions in which both sulphonamides and penicillin are known to have an effect, better results have been achieved in many instances by using them in combination than would have been obtained if either of the drugs had been used alone.

## MEDICAL DEGREES CONFERRED AT THE UNIVERSITY OF CAPE TOWN

At the mid-year graduation ceremony in the Jameson Hall of the University of Cape Town on 24 June 1955, honorary degrees were conferred among others on:

Pieter le Fras Nortier (Doctor of Medicine). (Died 5 April, 1955.)  
Albert Schweitzer (Doctor of Laws) (*in absentia*).

In the Faculty of Medicine the following degrees were conferred:

*M.S. (Otorhinolaryngology):*

Jack de Villiers, M.B., Ch.B.

*M.B., Ch.B.:*

Darma Lingham Appavoo.

Raymond John Henry Hill Colback.

David Graham Cooper.

Cedric Julius Dekenah.

Rubert Murphy Gordon.

Stanley Richard Jonathan.

Ryk Johan Joubert.

Jacques Mallac.

Motel Moskowitz.

Eric Johann Nagel.

George Armstrong Parsons.

Ralph Leslie Peters, B.A.

Abraham Johannes van Zyl Reeders.

Paul Julius Schnell.

Michael Lincoln Simenhoff.

Ian Frederick Taylor.

Karl Thomas van Wyk.

Jan Christiaan Vermaak.

Cedric Wannenberg.

Yves Pierre Aubrey Wiggishoff.

Jean Cambier Molteno Williamson.

## IN THE SHADOW OF CONTRACT PRACTICE

S. A. VAN LINGEN, M.B., Ch.B., D.P.H., D.T.M. & H.

Johannesburg

A recent report in the press stated that the cost of medical services might be the cause of a low birthrate, presumably as a factor in raising the cost of living. Birth rates, however, vary with standards of living, not costs of living. The well-to-do tend to have fewer children than the poor, no matter what the cost of living or the cost of medical services.

It was also advocated that a benefit-society scheme should be instituted to reduce the cost of medical services. I believe it will only provide a poor medical service that is relatively costly; and if there is any correspondence between cost of living and the birthrate in the middle-income group, the poor service will be a deterrent and offset the effects of the lower cost.

By means of this benefit-society scheme it is hoped to get an effective service more cheaply; but the poorly-paid rush jobs that benefit-society doctors are forced to do cannot but be ineffective. Cheap medical service turns many of his patients into demanding hypochondriacs, drug addicts, and wasters of medical material. It encourages many to demand his services for trivialities at any hour of the day or night, leaving him little time for serious cases, not to speak of time for rest.

Benefit societies and State medical schemes, where families or individuals pay a fixed fee per month and in return expect unlimited medical services and goods for even minor ailments, which are self-curing and would be so considered by any private patient, are the ruin of any medical service. For a medical service to be effective, the public must exercise discipline and responsibility.

### MEDICAL AID SCHEMES

The only way to achieve this in a medical aid scheme is to make the patient contribute not only a monthly subscription but a percentage of the total cost of treatment, be it visit, consultation or operation. This is the custom in some medical aid societies, which have a reduced tariff of medical fees on the ground that the majority of their members earn under £500 a year and that the doctor is promptly paid by the society. These grounds often do not exist in fact; even if they did the scheme, although not ideal,

is the only practicable one for lower-income groups and fairer to doctor and patient than the benefit-society system.

It is not ideal for the patient because the tariff is a reduced one and runs at the expense of the doctor. Even if it returned the same average fee as private practice it would not be psychologically healthy, because it reflects the patient's inability to be effective as an independent individual. The system deprives its members of their full personal freedom, contracting directly and personally, and makes them anonymous and insignificant members of a group, and no longer unique independent individuals.

The medical-aid system, with its reduced tariff, is an economic strain on the doctor, which he can only take if he also has a large private practice. If it were universal he would have to take on so many patients that his work would deteriorate, along with his health.

More irksome than the reduced fee is the rigidity of the tariff. A consultation fee remains 12s. 6d. whether the doctor spends 15 minutes on an easy case or 1-2 hours on a difficult one. It is time doctors were paid in such a way as to encourage them to give adequate service and to solve difficult problems that take time. Considering the uniqueness of every case one can understand why doctors prefer private practice, in which they can give individual and specific attention without being out of pocket for their pains.

### THE WELFARE STATE

It has recently been stated in the press that the clock of progress must not be put back and that the whole population should come under a medical-aid scheme. This is not progress; one is reminded of Aldous Huxley's *Brave New World*. Advance in civilized standards should imply, rather, better education and earning capacity, and more independence, resourcefulness and direct responsibility. If this is good for the Native, as we are told it is, it is also good for the European.

Politicians and administrators who talk of State medicine end by exploiting the medical profession and depriving the public of its personal freedom, responsibility and dignity. Private practice is the best medical service, and if the poor cannot afford the

luxury of a medical stage

Retaining and its co in which I No doctor general pr procedure A redu with a re

\* van L

Union De 2 June 1 Plague Typhus reported tion of 5 tion.

Epidemic Plague Cholera Smallpox (Cambodia) Nagpur, Mogadishu Typhus

Campbell Branch held at names a Street o After th for thos Division

Prizes a Americ mitted fundam will be of idea method of pres double 1955 to logical Manus to 10,0 essay scientis winning

Mar 194 Me

Conten tionary Chorda of the



luxury of independence they should have the next best, which is a medical-aid scheme. But let us hope that democracy can reach the stage when the poor no longer exist.

#### REDUCE THE COST OF MEDICAL SERVICES

Retaining private practice, how can its quality be maintained and its cost reduced? I have discussed this problem in an article \* in which I attributed its rising cost to the use of the term 'specialist'. No doctor should be called a 'specialist'. Let there be more senior general practitioners who can execute a greater variety of 'localist' procedures, and fewer specialists will be required.

A reduction in the cost of medical services would also come with a reduction in the cost of medicines, medical equipment,

\* van Lingen, S. A. (1955): S. Afr. Med. J., 29, 284.

### PASSING EVENTS : IN DIE VERBYGAAN

Union Department of Health Bulletin. Report for the 8 days ended 2 June 1955.

Plague, Smallpox: Nil.

Typhus Fever, Cape Province: No further cases have been reported from the Xalanga Magisterial District since the notification of 5 May 1955. This area is now regarded as free from infection.

Epidemic Diseases in Other Countries:

Plague: Nil.

Cholera in Akyab (Burma); Calcutta (India).

Smallpox in Moulmein, Rangoon (Burma); Phnom-Penh (Cambodia); Bombay, Calcutta, Delhi, Jodhpur, Lucknow, Nagpur, Tellicherry, Visakhapatnam (India); Tourane (Viêt-Nam); Mogadiscio (Somalia).

Typhus Fever in Alexandria (Egypt).

\* \* \*

Campbell Cup Golf Competition. Members of the Cape Western Branch who are desirous of taking part in this competition, to be held at Worcester, C.P. on 23 July, are asked to submit their names as soon as possible to Dr. Hamilton Bell, 85 St. George's Street or Dr. Jack Gelb, 90 St. George's Street, Cape Town. After the competition supper will be provided at the Club House for those taking part by the wives of members of the Worcester Division.

\* \* \*

Prizes of \$500, \$400, \$300 and \$200 are again offered by the American Dermatological Association for the best essays submitted for original work not previously published relative to some fundamental aspect of dermatology or syphilology. The essays will be judged on the following considerations: (1) Originality of ideas, (2) Potential importance of the work, (3) Experimental methods and use of controls, (4) Evaluation of results, (5) Clarity of presentation. Manuscripts typed in English, in triplicate and double spaced, must be submitted not later than 15 November 1955 to Dr. J. Lamar Callaway, Secretary, American Dermatological Association, Duke Hospital, Durham, North Carolina. Manuscripts (submitted under a *nom de plume*) should be limited to 10,000 words or less and the time of presentation of a prize essay should not exceed 30 minutes. Competition is open to scientists generally, not necessarily to physicians. The candidate winning first prize may be invited to present his paper before

hospital expenses; doctors' rents, their motor cars, and of course the general high cost of living which the doctor shares with the public. Medical equipment carries, I believe, higher profits even than cars.

There remains, however, the greatest factor of all. Medical attention is an essential service; to cut costs here is short-sighted and will result in deterioration. The main cut must come from what the Minister of Finance (Mr. Louw) has called the 'cost of high living'. Too much is spent on non-essentials; there is too much costly passive education, and too little free self-entertainment; too much costly possessiveness and too little free creativeness; too much dependence and too little independence. We must be on guard against senseless, artificial and costly desires that have no correspondence with deeper happiness. If we dispensed with non-essentials we could easily afford the dignity of independence in procuring private medical services that alone are effective and, in the long run, cheaper.

\* \* \*

Paediatric Group: Cape Town Sub-group. The next meeting of this Sub-group will be held on Friday, 8 July 1955, in the E. Floor Lecture Theatre, Groote Schuur Hospital, Cape Town, at 8.15 p.m. This will be a clinical evening.

\* \* \*

Rotary Foundation Fellowship. A Fellowship is to be awarded for the academic year 1956-57 on the recommendation of Rotary District 26, which includes the Cape Province, Natal and the southern half of the Orange Free State. The Fellowship is for graduates in any faculty, including that of medicine. Its value is approximately £1,000 and its purpose is to enable postgraduate work to be undertaken in another country; other qualifications being equal, preference may be given to an applicant who desires to study in a country with a language other than his own, provided he has the necessary language qualification. He will be expected to interpret South Africa to the Rotary clubs of the country where he is studying, and should be not only a good student but also a good mixer.

Persons thinking of applying for the Fellowship or who are interested in a possible applicant are invited to communicate with Dr. H. O. Hofmeyer, Governor District 26, 148 St. George's Street, Cape Town.

For the following year (1957-58) the award will be made by Rotary District 25, which includes the northern part of the Union and parts of the Rhodesias.

\* \* \*

The Deutsche medizinische Wochenschrift advises us that it is now printing English and Spanish summaries of all original articles published in each issue. 'It is hoped that this will stimulate, among physicians in other countries who know little German, a livelier exchange of medical information with their German colleagues'.

\* \* \*

Dr. David Barron, M.B., Ch.B., D.P.H., M.R.C.O.G., who has been registrar in Obstetrics and Gynaecology at Hope Hospital, Salford, England, and also to the Blackburn Group of Hospitals, has recently returned to South Africa and has begun specialist practice at Colonial Mutual Buildings, 106 Adderley Street, Cape Town.

### BOOK REVIEWS : BOEKRESENSIES

Man's Ancestry. By W. C. Osman Hill, M.D., F.R.S.E. Pp. 194 + ix, with illustrations. 21s. London: William Heinemann Medical Books Ltd. 1954.

Contents: Preface. Introduction. 1. The Evidence for Evolution. 2. Evolutionary Horizons in Human Phylogeny. 3. Evolutionary Advance within the Chordate Phylum. 4. How Animals Find Their Way About. 5. The Emergence of the Primates. 6. The Rise of the Anthropoids. 7. The Emergence of Man.

8. Fossil Men. 9. From Paleolithic to Present. 10. Some General Problems. Epilogue. Appendix. Bibliography. Glossary Index.

This is a clear, concise and critical account of human phylogeny. It is based on an excellent series of lectures delivered at Edinburgh University to those undergraduates desirous of acquiring a 'working knowledge' of physical anthropology. However, although

the preface also claims that the book is 'intended for the intelligent layman,' the reviewer doubts the ease with which the layman will fully grasp, even with the aid of the appended glossary, the first few chapters on the evidence for evolution and the evolutionary horizons in human phylogeny.

Some outstanding features are the clarity of the photographic plates, the quality of the diagrams (drawn mainly by the author's wife) and the bibliography—a well-chosen guide for those interested in detail.

The first two-thirds of the book deals with the evolutionary stages leading up to the emergence of Man; whereafter, the more important types of fossil and modern man are well described and discussed. These latter chapters contain sections which should be most thought-provoking to the layman as well as to the professional anthropologist. The reviewer cannot quite agree with some of Professor Hill's statements (but if he didn't he would not be an anthropologist!), for example, on p. 148, in a footnote mentioning the recent investigations on the Piltdown fragments, he states: '..... This (i.e. faking) is a serious allegation not likely to be accepted by everyone.' This appears to be over-conservative in the light of watertight evidence. It is also regretted that the author does not even mention the possibilities of tracing the blood-group genes in Man's history. As a matter of fact, he seems to neglect genetics completely despite its rapidly increasing importance as a weapon in the physical anthropologist's armamentarium.

Despite these minor frailties, this pocket-size edition of Man's Ancestry can be highly recommended to anatomists, anthropologists and all those interested in their own past. To South African laymen in particular this book will give a masterly bird's-eye view of the evolutionary field, knowledge valuable in that in our country the wealth of fossil material is so considerable that discoveries are reported in the daily press almost as often as 'stars' are 'found' in Hollywood.

R.S.

## SOSIALE KINDERHIGIËNE

*Ontwikkeling en Vernieuwing van de Sociale Kinderhygiëne.* Deur Suze M. C. van Veen. Pp. 122. Assen: Van Gorcum en Comp. N. V. 1954.

*Inhoud:* 1. Het Arbeidsterrein van de Kinderhygiëne. 2. De Historische Ontwikkeling. 3. De Grondslag. 4. Praenatale Zorg. 5. De Consultatiebureau's voor Zuigelingen. 6. De Consultatiebureau's voor Kleuters. 7. Vaccinatie. 8. De Schoolgeneeskunde. 9. Kadervorming, Opleiding en Bijscholing. 10. De Organisatie van de Kinderhygiëne. 11. Samenvatting. Résumé. Summary. Literatuurlijst.

Hierdie boek het saam met dié van dr. J. T. Buma (resensie waarvan in S.A. Tydskrif vir Geneeskunde, 16 April 1955, Vol. 29, Nr. 16 verskyn het) die prys, deur De Nederlandse Bond voor Moederschapzorg en Kinderhygiëne uitgelooft, verwerf.

Daar is gevoel dat die kind in Nederland baie goed op liggaamlike gebied versorg word, maar daar is nog leemtes in die emosioneel-geestelike versorging.

Na 'n kort historiese oorsig en met vermelding van die grondslag van die probleem, gaan die skryfster voort om die bestaande organisasies vir Suigeling-, Kleuter- en Skoolkind-versorging uiteen te sit. Daarna volg 'n voorstelling vir uitbreiding om Kindersorg sosio-psigosomaties te maak.

Die twee boeke behandel die probleem verskillend maar vul mekaar op mees gewenste wyse aan.

Vir almal wat belangstel in en belas is met die groei en sorg van die kind word die boek sterk aanbeveel.

J.G.A.D.

## CURRENT THERAPY

*Current Therapy 1955. Latest Approved Methods of Treatment for the Practising Physician.* Edited by Howard F. Conn, M.D. Pp. 692 + xxx. \$11.00. Philadelphia and London: W. B. Saunders Company. 1955.

*Contents:* 1. The Infectious Diseases. 2. Diseases of the Respiratory System. 3. Diseases of the Cardiovascular System. 4. Diseases of the Blood and Spleen. 5. Diseases of the Digestive System. 6. Disorders of Metabolism and Nutrition. 7. Diseases of the Endocrine System. 8. Diseases of the Urogenital Tract. 9. The Venereal Diseases. 10. The Allergic Diseases. 11. Diseases of the Skin. 12. Diseases of the Nervous System. 13. Diseases of the Locomotor System. 14. Obstetric and Gynaecologic Conditions. 15. Diseases due to Physical and Chemical Agents. Appendices and Indices.

This book is rapidly becoming one of the most popular books on

treatment in current use. It is readable, reasonably accurate and certainly up to date. The editor has collected a very powerful team of contributors. In addition to the 12 consulting editors there is a list of contributors occupying 13 pages! These include some of the most eminent authorities in their fields. The scope of the book, too, is very wide and covers most of medicine and a fair amount of surgery and obstetrics and gynaecology as well. It is intended for the practising doctor and will fulfil most of his needs.

As in previous editions two authors may each specify their own regime for a particular condition. As might be expected they often vary considerably and one could well wonder which regime to follow. As a result the book is a well balanced presentation of medical treatment as it is practised at present.

Some criticism is not out of place. Atabrine and carbarsone as the treatment of choice in amoebiasis certainly sounds rather strange. 'Routine' tracheotomy in tetanus would appear to be a bit drastic. In the larger centres vein ligation in phlebitis has become one of the rarer operations nowadays. An initial dose of 100 mg. of phenylindandione is probably too small. The risk of anticoagulant resistance after too large a dose of Vitamin K1 (given for haemorrhage) should be more emphasized. The 'traditional' use of pot. iod. and papaverine for hypertension might well be abandoned, as might the use of calcium gluconate for bleeding in haemorrhoids. A dose of TEM of 20 mg. in chronic lymphatic leukaemia may be dangerous. The complicated diet schedules for prevention of urolithiasis are of doubtful value. The free use of proprietary names for drugs in the text is also not easy to justify, but the admirable roster of drugs at the end of the book is very welcome. A list of common pharmacopoeial drugs with their proprietary equivalents would be even more welcome.

Finally, in view of the annual revisions would not a loose leaf format be perhaps more suitable?

C.M.

## PAEDIATRICS

*Diseases of Infancy and Childhood.* By Wilfrid Sheldon, C.V.O., M.D. (Lond.), F.R.C.P. (Lond.). Seventh Edition. Pp. 804 +x with 212 illustrations. 50s. London: J. & A. Churchill, Ltd. 1955.

*Contents:* 1. On the Examination of Children. 2. Some Affections of the New-born. 3. The Premature Infant. 4. The Diet of the Healthy Infant. 5. Digestive Disorders in Infancy. 6. Hypertrophic Stenosis of the Pylorus. 7. Rickets and Scurvy. 8. Disorders of Metabolism. 9. Diseases of the Mouth and Oesophagus. 10. Diseases of the Digestive System. 11. Abdominal Tuberculosis. 12. Disease of the Liver, Gall Bladder, and Pancreas. 13. Diseases of the Urinary System. 14. Diseases of the Throat, Nose and Ear. 15. Diseases of the Respiratory System. 16. Intra-Thoracic Tuberculosis. 17. Diseases of the Circulatory System. 18. Diseases of the Blood, Spleen, and Lymphatic System. 19. Diseases of the Endocrine Glands. 20. Diseases of the Nervous System. 21. Functional Nervous Disorders. 22. Mental Deficiency. 23. Diseases of the Joints, Bones, and Muscles. 24. Some Common Diseases of the Skin. 25. Congenital Syphilis. 26. Acute Infectious Fevers. Index.

For many years this British text-book of Paediatrics has been popular because of the quality of its presentation. It was written primarily for the undergraduate and the doctor in practice to serve as something more than a handbook; it was not intended to replace the larger works of reference.

Much information is packed into this volume in a form which makes very pleasant reading even when one comes to the few rare but important diseases which have been wisely included.

This latest edition retains the style of the earlier ones and has been thoroughly brought up to date. Several sections have been newly written and many conditions that have received attention in recent paediatric literature have been included for the first time. This has been done without an increase in the size of the book, which is a real achievement. The author is to be admired for his fairness and common sense when dealing with controversial aspects of treatment. There is a welcome absence of dogmatism. The only real criticism offered is that more detailed attention might have been paid to the treatment of dehydration and disturbances of electrolyte metabolism, which are important and practical problems in practice. The illustrations include a number of good colour plates. This book can be warmly recommended as the first one to read when starting the study of paediatrics, and will prove useful in any doctor's library.

J.H.

Zieke Z  
herziene  
Comp. l

Inhoud: 1.  
voeding van  
6. Brakende  
ademhalings  
Bloed afwijk  
13. Stuipep.  
Myxoedem  
Antibiotica  
19. Het cons

Die kern  
daar in  
hande te  
metodes.

Dr. Ver  
sake geho  
In 1948  
derde her  
die inhou

Dr. Ver  
saam te v  
word die  
aanwysin  
fonamied  
met die g

Nuut-h  
ens. is in  
So gee  
wat so v  
ning gem

Vir die  
'n suigeli

Storki  
Joan.

A well-  
written i  
the stor  
inevitab  
Joan wi  
father's

There  
both wi

Ooiev  
Joan.  
Sentral

'n Welb  
vorm d  
verskyn  
is geillu  
elke bla  
Daar  
geneesh

The  
Mau  
F. C  
Lond

The a  
Bromp  
descrip  
the rea

In t  
Lond  
the pa  
admis  
Neithe

## DIE SIEK SUIGELING

**Zieke Zuigelingen.** Deur C. H. Verboom. Derde wederom herziene druk. Pp. 302. Geb. f. 12.50. Assen: Van Gorcum en Comp. N.V. 1955.

Inhoud: 1. Afwijkingen bij pasgeborenen. 2. Aangeboren afwijkingen. 3. De voeding van de gezonde zuigeling. 4. Avitaminosen. 5. Voedingsstoornissen. 6. Brakende zuigelingen. 7. Enkele neus- keel- oor- en mondziekten. 8. Ziekten der ademhalingsorganen. 9. Afwijkingen aan nieren en urineweg. 10. Enkele Bloed afwijkingen. 11. Enkele Hartafwijkingen. 12. Enkele Infectieziekten. 13. Stuipe. 14. Enkele Huidziekten. 15. Enkele oogafwijkingen. 16. Acrodynie. Myxoedem. Mongolisme. Myotonia congenita. Dysostosis multiplex. 17. Antibiotica in de Kindergeneeskunde. 18. Het onderzoek van de zuigeling. 19. Het consultatie bureau voor zuigelingen.

Die kern van hierdie boek het ontstaan in die besettingstyd, toe daar in Nederland min geleentheid was om publikasies in die hande te kry betreffende nuwe geneesmiddels en behandelingsmetodes.

Dr. Verboom het toe die algemene praktisyns op hoogte van sake gehou met afgerolde mededeleings.

In 1948 is dit in boekvorm saamgevat; nou in 1955 het daar die derde herdruk verskyn, wat 'n bewys is van die bruikbaarheid van die inhoud.

Dr. Verboom het die gawe om met min woorde die hoofsaak saam te vat en tog die bysake nie te vergeet nie. Vir die behandeling word die beste voorskrifte gegee met opgawe van dosisse; die aanwysing en die teen-aanwysing vir die behandeling met sulfonamides, met die allernuutste antibiotika en ander middele, is met die grootste sorgvuldigheid aangegee.

Nuut-herkende siektes, soos kattekrabsiekte, galaktosemie, ens. is ingesluit. Alles is tot op hede bygewerk.

So gee die boek 'n saamvatting van al die siektes van die suigeling, wat so volledig is soos daar in 'n ander taal nog nie een sy verskyning gemaak het nie.

Vir die algemene praktisyn wat in 'n oomblik inligting betreffende 'n suigeling se siekte wil hê, kan hierdie boek besonder nuttig wees. E.J.

## IN LIGHTER VEIN—GLIMLAGGIES

**Storkie's Footsteps**, captions by Oom Harry and Lino-cuts by Joan. Pp. 53 with illustrations. 7s. 6d. Obtainable at C.N.A.

A well-known colleague, who is an anaesthetist in Pretoria, has written in rhyme the old, old story from the time the footprints of the stork appear on the bed coverlet to the 'happy event' which so inevitably follows. The little book is illustrated by his daughter Joan with admirable lino-cuts which appear on each page over her father's captions.

There is an Afrikaans version entitled 'Ooievaarspore', and both will be found amusing by the doctor and his patients.

**Ooievaarspore**, woorde deur Oom Harry en lino-snitte deur Joan. 53 bladsy met illustrasies. 7s. 6d. Verkrygbaar by die Sentrale Nuusagentskap.

'n Welbekende kollega, 'n narkotiseur in Pretoria, vertel in rymvorm die ou-ou storie vandat die ooievaarspore op die deken verskyn totdat die gelukkige gebeurtenis plaasvind. Die boekie is geïllustreer deur sy dogter Joan, met pragtige lino-snitte wat op elke bladsy verskyn met haar vader se opskrifte daarop.

Daar is 'n Engelse uitgawe met die titel 'Storkie's Footsteps' en geneesheer en pasiënt sal beide boekies amusant vind.

A.H.T.

## THE STORY OF THE BROMPTON HOSPITAL

**The Brompton Hospital. The Story of a Great Adventure.** By Maurice Davidson M.A., D.M. (Oxon.), F.R.C.P. (Lond.) and F. G. Rouvray O.B.E. Pp. 152+vi. with illustrations. 21s. London. Lloyd-Luke (Medical Books) Ltd. 1954.

The authors of this book describe the establishment of the Brompton Hospital as 'the story of a great adventure'. This description could truly be amplified by saying that it proved to be the realization of a great ideal.

In the spring of 1841, a poor clerk in the employ of a firm of London solicitors became gravely ill with consumption. One of the partners, Mr. Philip Rose, repeatedly endeavoured to obtain admission for him into hospital. All his efforts were of no avail. Neither the metropolitan nor the provincial hospitals would admit

as an in-patient any person with any infectious disease and specifically one 'whose case shall be consumptive'.

The efforts of the humane and public-spirited Mr. Rose led to the establishment of a hospital for the treatment of sufferers from pulmonary tuberculosis. This book unfolds the fascinating story of the growth and development of the premier chest hospital in the world. Reproductions from old journals and pictures illustrate this interesting record.

The numerous special chest hospitals all over the world, in many cases staffed by men who received their training at the Brompton Hospital, are a testimony to the idealism of a handful of men just over 100 years ago.

Everyone interested in diseases of the chest will want to read this chronicle.

W.L.P.

## RADIOLOGY OF OESOPHAGUS, STOMACH AND DUODENUM

**X-Ray Atlas and Manual of Esophagus, Stomach and Duodenum.** By Dr. T. J. J. H. Meuwissen. Pp. 687+xiv, with 1,201 illustrations. £8 15s. Amsterdam: Houston: London: New York: Elsevier. London: Cleaver-Hume for Elsevier. 1955.

Contents: Chapter I. The Pharynx and Esophagus. A. Buccopharyngeal Section of the Alimentary Tract. B. The Esophagus. Chapter II. The Stomach. A. Shape and Position of the Stomach. B. Mucosal Changes Attending Gastritis. C. Gastric Ulcer. D. Carcinoma of the Stomach. E. Sarcoma of the Stomach. F. Benign Tumors of the Stomach. G. Diverticulum of the Stomach. Chapter III. The Duodenum. Appendix. Index.

Dr. Meuwissen has produced an X-ray atlas of pathological conditions of the oesophagus, stomach and duodenum which is outstanding for the excellent choice of illustrations as well as their reproduction. Each represents a case examined by the author and a history is given. The scope is complete, except for the absence of paediatric cases.

It is when the book is referred to as a manual or even a textbook that weaknesses emerge. The author clearly intends the work primarily for gastro-enterologists like himself who do their own radiology, and with this there can be no quarrel, but what manner of clinician is it who has to be told that 'surgical treatment is applied to the stomach to remove a gastric or duodenal ulcer... or to cure stenosis as the result of an ulcer', and yet is expected to interpret X-rays? And the phrase 'If examination of the patient has convinced the radiologist that an ulcer is responsible for the symptoms', surely does not indicate the conventional places of physician and radiologist in gastro-enterology.

Moreover the text is not sufficient for examination purposes. That the book is a translation may explain expressions like 'The gastric wall barely follows respiration after perforation', 'Gastric juices are seldom revelatory as to the presence of a gastric ulcer', 'Serviceable mucosal pattern', 'Therapeutic treatment', and 'Contour is kinky', and the statement that the 'Onset of gastric carcinoma may be ostensibly acute, so much so that the patient is able to give the exact date of its commencement. This is usually after some banquet...'

But it is not only translation that accounts for other statements, e.g., 'A pericardial effusion involves little or no displacement of the oesophagus' or 'Hiatus hernia in which the oesophagus herniates laterally into the stomach', or for certain unnecessary verbosity. Proof-reading too has overlooked numerous misprints.

Nevertheless, it will not be easy for a student or radiologist to find a collection of skiagrams of comparable scope or clarity. It is hoped that the text will be drastically edited before the next edition, so that this book, in the form intended, can take its rightful place as a classic on the upper gastro-intestinal tract; and, if in the process it becomes cheaper, no one will complain.

L.W.

## THE SCIENTIFIC BASIS OF MEDICINE

**Lectures on the Scientific Basis of Medicine, Volume II, 1952-53.** By the British Postgraduate Medical Federation, University of London. Pp. 380+xi, with plates. 35s. London: The Athlone Press, University of London. 1954.

Contents: 1. The Methodology of Clinical Science. 2. Selective Toxicity. 3. Recent Progress in Antibiotics. 4. Virus Adaptability in Relation to Human Disease. 5. Carcinogenesis. 6. The Functional Significance of Connective Tissue. 7. Silicosis. 8. The Principles of Ganglionic Block. 9. Cholinesterases and Anti-Cholinesterases. 10. The Metabolism of the Adrenocortical Hormones. 11. Biochemical Genetics. 12. Chromatography in the Study of Amino-Acid Metabolism. 13. The Physiology



of Parturition. 14. Preservation of Living Cells at Low Temperatures. 15. The Life-Span of Red Blood-cells. 16. Human Haemoglobins. 17. The Life History of the Malaria Parasite. 18. The Physiological Effects of Gravity. 19. The Physiology of the Autonomic Nervous System. Complete List of Lectures. Plates.

Advances in the knowledge of fundamental ideas or the refutation of erroneous concepts are always of the greatest interest to the medical scientist, for it is upon these beliefs that the whole of medicine stands.

This book contains 19 of the lectures that were arranged in 1952-53 by the British Postgraduate Medical Federation for younger research workers and postgraduate trainees. The subjects of the lectures have been chosen from fields of research in which there have been advances in the knowledge of basic principles. The lecturers themselves are actively engaged in original research; as a result many of the lectures have the freshness of a first-hand account and a number are made eminently readable by the use of an intimate style reminiscent of the printed broadcast talks in *The Listener*.

The lectures, as is to be expected, fall naturally into one or other of the fields of bacteriology, pathology, biochemistry and physi-

ology and almost all are of absorbing interest and have applications in every branch of medicine. Some examples are carcinogenesis, the preservation of living cells at low temperatures, recent progress in antibiotics, and the physiology of parturition. There is one lecture on the metabolism of the adrenocortical hormones, and an important related topic is discussed by A. H. T. Robb-Smith in a masterly lecture entitled *The Functional Significance of Connective Tissue*. This is about the nature, source, functions and pathology of collagen, reticulin, elastic tissue, and their matrix of ground substance.

The book is of convenient size and the print is large and clear. Adequate references are given at the ends of the lectures, but it is a pity that all the plates are at the end of the book.

Many of the lecturers are well known and a few are famous; their names and the mention of broadcasting above lead to the reflection that reasonably-priced magnetic tape recordings, or long-playing records, of future lectures in this series should be as popular as this book ought to be.

J.C.E.K.

## CORRESPONDENCE : BRIEWERUBRIEK

### TREATMENT OF TUBERCULOSIS BY THE GENERAL PRACTITIONER

To the Editor: Dr. E. Meltzer<sup>1</sup> in no uncertain terms castigates the medical personnel of the Alexandra Health Clinic<sup>2</sup> for suggesting that the domiciliary therapy of patients suffering from pulmonary tuberculosis should be carried out under the supervision of specialists and in collaboration with the public health administration.

I do not think that their letter implied any slight against the capabilities of the general practitioner. Nevertheless, it is a fact that the general practitioner has not at his disposal the organization to cope satisfactorily with tuberculosis as a whole entity. It is not a question of a patient suffering from a disease needing a specific therapy, but a vast socio-medical problem. Surely, Dr. Meltzer cannot believe that the treatment of tuberculosis is concerned only with the administration of certain antibiotics!

The provision of a satisfactory diet is still one of the great factors in tuberculosis therapy. If the patient is the breadwinner, it is imperative that food parcels and invalidity grants should be provided. This integral part of the therapy is entirely outside the scope of general-practitioner services.

Again, has the general practitioner the time to advise on hygiene matters? Will he examine all the contacts? How would it be possible for a Native without any income to pay for such services? Does Dr. Meltzer really believe that the location Native can afford to pay for therapy lasting many months or even years? Would it not be far better if all such Natives attended a free clinic where continuation of treatment would not be dependent on the meagre finances of the patient, which would be far better spent on the provision of food for himself and his family.

If there is a prejudice against the general practitioner it is perhaps that he will not think in the broader terms of disease, but only of therapy and specialists dealing with lungs.

The health assistant and the social worker are also important specialists in the field of tuberculosis control.

S. B. Sachs

P.O. Evaton  
15 June 1955

1. Meltzer, E. (1955): S. Afr. Med. J., 29, 576 (11 June).
2. Cormack, M. A., Hathorn, M. K. S., Stein, Z. A. and Susser, M. W. (1955): S. Afr. Med. J., 29, 488 (14 May).

### THE WATERING EYE

To the Editor: Dr. Appleton's excellent article on this subject prompts me to mention a cause of epiphora which is not often recognized. In certain cases one may find the punctae normal in position and no regurgitation from the sac, and fluid is easily syringed through the lacrymal passage into the naso-pharynx.

This condition is probably due to atonia, and a number of these cases respond to therapy with Bellergal (Sandoz) tablets.

J. E. Wolff

310 Cavendish Chambers  
Cor. Jeppe and Kruis Streets  
Johannesburg  
20 June 1955.

Appleton, S. C. (1955): S. Afr. Med. J., 29, 567 (11 June).

### RAILWAY SICK FUND SPECIALIST APPOINTMENTS

To the Editor: In the *Journal* of 11 June an advertisement appears inserted by the S.A.R. and H. Sick Fund inviting applications for two posts of part-time anaesthetist in Pretoria. A 'warning notice' also appears in the same issue advising applicants to contact the secretary of the Northern Transvaal Branch of the Association before applying. In other words the Anaesthetists' Group has advised its members not to apply for these two posts.

Last year the Anaesthetists' Group also advised its members not to apply for the post of anaesthetist to the S.A.R. and H. Sick Fund in Bloemfontein, and the previous year in Port Elizabeth. In 1954 the Orthopaedic Group banned posts advertised by the S.A.R. and H. Sick Fund. The physician posts of the S.A.R. and H. Sick Fund were also banned, until the capitation fee was raised.

In the same year the Mines Benefit Society appointed a general surgeon at Odendaalsrust before the advertisement had even appeared in the *Journal*. Subsequently a post of additional surgeon was advertised for the Witwatersrand area by the Mines Benefit Society; also a post of ophthalmologist surgeon. Neither of these posts were banned although the M.B.S. specialists are the worst paid in the country, and fall far short of the capitation rates accepted by the Association.

The S.A.R. and H. Sick Fund pays its specialists much better, in fact most of them are now paid Medical Association capitation rates.

On strong representation by the R.M.O. Group the capitation rates of all S.A.R. and H. specialists have been reviewed by the Research and Investigation Officer of the Sick Fund. This report will be submitted to the Executive Committee of the Sick Fund on 21 July. The capitation rate of the anaesthetists will undoubtedly be raised, as most probably will those of the other specialists who are not yet in receipt of Medical Association rates.

Why should S.A.R. and H. Sick Fund specialist posts be banned and not those of the Mines Benefit Society, who pay their specialists very badly? Why this inconsistency; or is it because the Groups are running the Association? The action of Groups acting independently without the prior sanction of Federal Council makes the Association look ridiculous.

Takhaar

20 June 1955